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No. 1699.—Vol. XXXVIII.

LONDON, SATURDAY, MARCH 14, 1868.

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

(WITH SUPPLEMENT) STAMPED ....SIXTENCE UNSTAMPED...FIXTHEROE

MR. JAMES CROFTS, STOCK AND SHAREBROKER,
No. 1, FINJH LANE, CORNHILL.

SUMMER HILL shares, after a large business done in them, are reduced in
market value to a price apparently much below their merits, consideration being
had to the fact that £10 per share is only equal to £3000 for the entire mine;
whilst the reduction has been caused by pressure of a limited number of seliers
to realise upon a small cost. It has already paid 455, 6d, per share in dividends,
and continues to promise a very high rate of remuneration. BUYERS at the
prices lately ruling should average their shares by purchasing at the reduction
in price, the market appearing to be cleared of all eager sellers.

WEST GODOLPHIN are recommended as an INVESTMENT. These shares are
now at a moderate price, and the prospects of the mine most encouraging. Dividends will be regularly paid, yielding a high percentage on cost. A limited
number of shares for sale AT THE LOWEST MARKET PRICE.

BUSINESS in ST. BRIDE'S SLATE QUARRIES (Pembrokeshire).—A valuable
report from these extensive quarries has been received, a copy of which can be
had on application. The shares are estimated to pay in the course of this year
a very large percentage on a small outlay, and those Mr. CropTs has for sale are
peculiarly eligible as an investment in perpetuity, being fully paid-up to 21,
per share.

Bankers: National Bank of Scotland, 37, Nicholas-lane, E.C.

peculiarly eligible as an investment of Scotland, 37, Nicholas-lane, E.C.

Bankers: National Bank of Scotland, 37, Nicholas-lane, E.C.

MR. JOHN BUMPUS, 44, THREADNEEDLE STREET, M. R. JOHN BUMPUS, 44, THREADNEEDLE STREET,

10 Anglo-Braz., 10s.
15 Chontales, 24.
20 ditto Royalty (£5
paid), £3.
20 Garv Camborne, 4s.
20 Chiverton Moor, £6%
40 Drake Walls, 10s. 9d.
20 East Russell, 26s.
20 East Russell, 26s.
20 East Caradon, £4.
21 East Caradon, £4.
22 East Caradon, £4.
23 No. Treskerby, 27s. £6.
24 Uncal Buller, £17%.
25 OV. Pr. of Wales, 9s.
26 W. Pr. of Wales, 9s.
26 East Caradon, £4.
27 Uncal East Caradon, £4.
28 East Caradon, £4.
29 East Caradon, £4.
29 East Caradon, £4.
20 East Caradon, £4.
20 East Caradon, £4.
21 Uncal East Caradon, £4.
22 East Caradon, £4.
23 No. Treskerby, 27s. £6.
25 W. W. R. Kitty (Lelaut), £6.
26 East Caradon, £4.
26 East Caradon, £4.
27 Uncal East Caradon, £4.
28 East Caradon, £4.
29 East Caradon, £4.
20 East Caradon, £4.
20 East Caradon, £4.
20 East Caradon, £4.
21 Uncal East Caradon, £4.
22 East Caradon, £4.
23 No. Treskerby, 27s. £6.
25 W. W. R. Kitty (Lelaut), £6.
26 East Caradon, £4.
28 East Caradon, £4.
29 East Caradon £4.
29 East Caradon £4.
20 East Caradon, £4.
20 East Caradon, £4.
20

GUIDE TO INVESTORS.—THE STOCK, SHARE, AND FINANCE REGISTER for March contains a comprehensive review of the Stock and Share Markets; a list of all the dividends paid in February; a comparative estimate of the profits of the several descriptions of shares; a selection of Investments paying 10 to 19 per cent.; and information for tending investors.—6d, per copy, or 5s, annually, post free. Published by Mr. BAKER LELEAN, at his offices, 11, Royal Exchange, London.

W I L L I A M W A R
STOCK AND SHAREDBALER,
No. 29, THREADNEEDLE STREET, LONDON, E.C.

MR. JOHN BATTERS, STOCK AND MINING SHAREBROKER, 13, THROGMORTON STREET, LONDON, E.C. MR. WILLIAM SEWARD, STOCK AND MINING SHARE BROKER, 19, THROGMORTON STREET, LONDON, E.C. Every description of shares BOUGHT and SOLD at the best market prices.

R. THOMAS SPARGO, STOCK AND SHAREDEALER, 224 & 225, GRESHAM HOUSE, OLD BROAD STREET, LONDON, 154

MR. J. B. REYNOLDS, 70 and 71, BISHOPSGATE

STREET WITHIN, LONDON, E.C.

Established Eleven years.

Copper and tin advanding in price, and mines long neglected now in request.

A considerable rise is reasonably expected in many properties noticed by Mr.

REYNOLDS. Gratuitlous information given in the strictest confidence.

Mr. REYNOLDS has BUSINESS in the undermentioned properties, at prices highly advantageous for buyers—viz., Wheal Kitty (St. Agnes). Rose and convertion United, Prince of Wales, West St. Ives, West Wheal Kitty, Chontaks, Chiverton Moor, Colquite and Callington, Wheal Kitty (Lelant).

CAPTAIN JAMES POPE (late of BASSET), on COLQUITE AND CALLINGTON UNITED.—A copy of this report can be obtained from Mr. J B. REVNOLDS, 70 and 71, Bishopsgate-street Within, London, Ed., on payment of 5s.—March 14, 1868.

OLQUITE AND CALLINGTON UNITED,

Mr. J. B. REYNOLDS is a BUYER of any number of shares in this pro

perty. Parties wishful to sell will please state number and lowest price.

70 and 71, Bishopsgate-street Within, London, E.C.

M ESSRS. POWELL AND MOSS, SHAREDEALERS, 78, OLD BROAD STREET, LONDON, E.C., and Mining Exchange, have large transactions in Prince of Wales, North Treskerby, Frontino, North Crofty, Chiverton, Chiverton Moor, and West Chiverton. Parties dealt with at a fair margin on the market price. 

JOHN RISLEY, (SWORN) STOCK AND SHAREBROKER, 48, THREADNEEDLE STREET, LONDON, E.C.
Business transacted in the British Funds, Rallway and other Stocks, Foreign Bonds, &c., on the usual commission, 14 per cent. on mining and other shares, above £2; and at £2 and under 6d. per share.

References given and required.

Bankers: London and Westminster, Lothbury.

MR. THOMAS THOMPSON, MINING OFFICES, I cannot do better than continue to recommend Westminster, Central Snail beach, Rbury, and East Snaefell Mines, all of which continue to look and promise well for the future. beach, Rbury, and East Snaefell Mines, all of which continue to look and pro-mise well for the future.

Thompson's shaft is clear of sand at WESTMINSTER, and will now go on in the regular course of sinking. This is the most important operation of the mine.

MR G. D. SANDY, STOCK AND SHAREDEALER, No. 48, THREADNEEDLE STREET, LONDON, E.C., TRANSACTS BUSINESS IN EVERY DESCRIPTION OF STOCK EXCHANGE SECURITIES, MINING and FINANCIAL ENTERPRISES, at close market prices, Correct Daily Price List can be had on application.

Money advanced to any amount on legitimate stocks and shares.

R. WILLIAM MARLBOROUGH, 1, GREAT ST. HELEN'S, BISHOPSGATE STREET, LONDON, E.C. (Established 13 years), has FOR SALE the FOLLOWING SHARES, at nett prices:—

60 Anglo-Brazil. 99. 6d 50 Frontino, 148. 3d. 3 50. Frances, £20¾. 20 Chiverton, £3 3s. 9d. 20 Gt. 80. Tolgus, 17s 6d 50 Chiv. Moor, £6 18s. 40 16 t. Retallack, £23¼. 50 Chontales, £3 18s. 9d. 50 Gunnislake (Clitters), 5 Tincroft, £14½. 50 Cook's Kitchen, £9¾. 10 Gk.Wh. Fortune, £4½. 50 W. DrakeWalls, 10s. 9d. 10 Marke Valley, £6¾. 3 W. Chiverton, £64½. 30 Drake Walls, 10s. 9d. 10 Marke Valley, £6¾. 30 W. Pr. of Wales, 9s. 10 E. Carn Brea, £2 18 3 40 North Croftx, £2 16 3 30 Wheal Generille, 29s. 30 Wheal Generille, 29s. 30 Wheal Generille, 29s. 30 Wheal Generille, 29s. 20 U. So. Tolgus, 17a 6d
10 Gt. Retallack, £234.
50 Gunnislake (Clitters),
30 80.
10 Gt. Wh. Fortune, £444
5 Gt. Wh. Vor, £1844.
10 Marke Valley, £654.
5 North Roskear, £894.
40 North Crofty, £2 16 3
50 Prince of Wales, 686.
1 Providence, £264.
20 W. Rosk Wales, 98.
1 Providence, £264.
20 Wend (Crofty, £2 16 3)
20 Wend (Crofty, 20 Drake Walls, 10s. 9d. 3 East Basset, £10 8s 9d 10 E. Carn Brea, £21s 3 10 East Greenville, £134 5 East Lovell, £8 13s 9d 30 East Russell, 24s. 15 East Caradon, £3%.

MR. GEORGE BUDGE, STOCK AND SHAREDEALER, No. 4, ROYAL EXCHANGE BULDINGS, BONDON, E.C. (Establishe 19 years), has FOR SALE at nett prices:—95 Colquite and Callington United M. No. 4, ROYAL EXCHANGE BULDINGS THONDON, E.C. (Established 19 years), has FOR SALE and the prices:—95 Colquite and Callington United; 10 Macs.-yc.sfn, £28½; 100 Quebrada; 200 Angio-Brazilian, 9s, 9d.; 200 West St. Ives: 1 Minera, £280; 1 South Caradon; 50 Linares (lead); 37 West Wheal Kitty, 10s.; 2 West, £28½; 15 Rose and Chiverton United; 1 Wheal Seton, £38; 3 Mary Ann, £21½; 45 Don Pedro; 55 Wheal Kitty, 10s.; 60 Prince of West, 57s., 9d.: 10 Mark Valley, £63;; 35 Westminster, £5 8s, 6d.; 50 Gawton; 10 West Okel Tor; 100 Okel Tor, 10s.; 120 Lovell Console, 8s, 6d.; 50 New Crowlin, 10 West Caradon; 25 Wheal Uny, 31s.; 180 Redmoor, 3s. 9d.; 50 New Crawlin, 11s.; 10 Summer Hill; 10 Foxdale; 100 Anglo-Italian; 50 United Mexican, £2½; 50 Yestminstan, £7s.

70 Yudanamutana, 37s.
SPECIAL BUSINESS in Minera, Maes-y-Safn, Colquite and Callington United,
Cape Copper, Wheal Kitty (St. Agnes), West St. Ives, Devon Great Consols, Great
North Downs, Frontino and Bolivia, and Anglo-Brazilian.

ORNWALL AND DEVON MINES.

FOREIGN GOLD MINES. &c.

PETER WATSON'S "WEEKLY MINING CIRCULAR AND SHARE LIST—
SYNOPSIS OF CORNISH AND DEVON MINES." of Friday, March 13, No. 470,
Vol. X., price 6d. each copy, forwarded on application, contains information
on the following mines:—
Prince of Wales.
Wheal Mary Ann.
Wheal Mary Ann.
Wheal Mary Ann.
Wheal Trelawny.
North Wheal Crofty.
North Wheal Crofty.
Sast Seton.
Great Wheal Vor.
East Seton.
With Remarks on the Tin Trade, Mining Share Markets, Advance by the

THE LONDON DAILY RECORD-STOCK AND SHARE

LIST-STOCK EXCHANGE SECURITIES. Published every evening 5 o'clock. It contains the latest prices of railways, banks, mines, foreign sta and bonds, financial, insurance, and miscellaneous shares, remarks on the drise and fall in prices, with advice as to purchase and sales. Annual subsettion, £1 is.; by post, £2 5s.; monthly subscription—by post, 4s.; single copy, by nost, 2d. PETER WATSON, Stock and Sharedealer, 79, Old Broad-street, London 18

INVESTMENT OR SPECULATION.—A SELECTED LIST OF RAILWAYS, BANKS, MINES, COLONIAL SECURITIES, FOREIGN GOVERNMENT BONDS, &c., forwarded to bona fide investors on application, in addition to the high rate of interest many of the above are paying, there is now every probability of a great rise in market value.

PETER WATSON, STOCK AND SHAREDEALER,
79, OLD BROAD STREET, LONDON
(three doors only from Hercules-passage, entrance to the Stock Exchange).
Twenty-three years' experience.
(Two in Cornwall and Twenty-one in London.)
Bankers: The Alliance Bank, and the Union Bank of London.
References given and required (when necessary) in all the principal towns of the United Kingdom.

M. R. EDWARD COOKE, STOCK AND SHAREDEALER,
76, OLD BROAD STREET, LONDON, E.C.
The following mines dealt in at close market prices:—East Lovell, Great
Wheal Vor, Prince of Wales, West Drake Walls, West Caradon, North Wheal
Chiverton, Carn Brea, Frank Mills, Caldbeck Fells, North Treskerby, New
Wheal Lovell, West Chiverton, Trelawny, West Kitty, East Carn Brea, Wheal
Seton, North Downs, Clifford Amalgamated, and Trumpet Consols.
BUYERS or SELLERS of the above will find it to their advantage to apply
to Mr. COOKE.

Satisfactory references given in any town in the United Kingdom Bankers : Alliance Bank.

W. H. C U E (late of the firm of Warson and CUELL), Has REMOVED TO 42, CORNHILL, LONDON, E.C.

GEORGE RICE, STOCK AND SHAREDEALER, 78, OLD BROAD STREET, LONDON, E.C. (Member of the Mining Exchange), 25 years' experience), TRANSACTS BUSINESS in MINING SHARES, at Close prices.

March 13, 1868.

Bankers: Bank of England.

H E N R Y M A N S E L L,
STOCK AND SHAREDEALER,
No. 44, THREADNEEDLE STREET, LONDON, E.C.
References Exchanged.—Member of the Mining Exchange.
Bankers: London Joint-Stock Bank.

JOHN WILLIAM HUTCHINSON
offers FOR SALE, at cash nett prices:
15 Chontales, £4 is. 3d. 10 East Russell, £5s. 20 North Treskerby, 27s.
10 Chiverton, £3. 10 E Grenville, 33s. 9d. 10 North Crofty, £2 is 3 5 Chiverton Moor, £634 29 Great Retallack, £244 25 Prince of Wales, 57s.
5 Clifford, £6 10 Gawton, £294. 10 Wh. Grenville, 28s 6d Parties, by applying to the above, may readily dispose of shares for which a difficulty may be experienced in finding buyers through other sources.

OFFICES-31, THROGMORTON STREET, LONDON, E.C.

MR. JAMES HUME, STOCK AND SHAREDEALER, 74, OLD BROAD STREET, LONDON, and MINING EXCHANGE.
Transacts BUSINESS in Railway and Mine shares at closest market prices, and at margins of ½ and 1½ per cent. respectively.
Every description of shares BOUGHT and SOLD for cash or account.
EAST CHIVERTON MINE.—Full particulars of this most promising young mine will be supplied on application to Mr. HUME.
Mr. HUME begs to refer to his remarks on the Mining Market in page 191 of this day's Journal.

this day's Journal.
Mr. J. Hume's "Circular" for March, price 6d., now ready.
Bankers: The London Joint-Stock.

MR. R. EMERSON, 28, GREAT WINCHESTER STREET,
LONDON, E.C.
WHEAL KITTY (St. Agnes).—Last week is trongly recommended the purchase
of these shares. This week they have, as I expected, advanced in price, and the
improve. I also predicted a great rise in Colquite and Callington United and
west St. Ives. I now repeat the advice, and say BUY in each.

MATTHEW GREENE, STOCK AND SHAREDEALER, 1, ST. MICHAEL'S HOUSE, CORNHILL, LONDON, E.C.
The shares in the following mines are worth buying at present prices:—Tamas Silver-Lead, Montgomeryshire Lead and Barytes, New Clifford. Full particulars of the above on application.

Bankers—Metropolitan Bank, Cornhill, London.
Tweedy, Williams, and Co., Redruth, Cornwall.

Established Fourteen Years. M ESSRS. WARD AND JACKMAN, SHAREDEALERS.
CUSHION COURT, OLD BROAD STREET, CITY, E.C.
Members of the Mining Exchange, London.

INVESTMENT, LOAN, AND BANK AGENCY.

Established 1839.

PUBLIC SECURITIES of every description BOUGHT and SOLD upon advan-

tageous terms.
LOANS granted, for one year or any shorter period, on Stocks and Shares having a market value.
FIVE PER CENT. INTEREST allowed upon DEPOSITS of all amounts with-

drawable at one month's notice.

Bank and Finance Agency Business generally undertaken.

RICHARD TAYLOR AND COMPANY.

No. 12, Clement's-lane, Lombard-street, London, E.C.

M R. C H A R L E S T H
MINING AGENT, GENERAL SHAWGDE
3, GREAT ST. HELEN'S, LONDON, EC T H O M A S, CTIONEER,

Second Edition, price One Shilling; post-free, for Senstamps,

M INING FIELDS OF THE WEST:

A PRACTICAL EXPOSITION OF THE

PRINCIPAL MINES and MINING DISTRICTS OF CORN WALL and DEVON.

Published by CHARLES THOMAS,

At No. 3, Great St. Helen's, London, E.C.

MESSES. LANE AND GIBBS, 2, ROYAL EXCHANGE,
LONDON, E.C. (Members of the Mining Exchange), STOCK AND
SHAREDEALERS, transact business in all kinds of securities at closest nett
prices for each or account.
Daily price list on application.
Bankers: London and County Bank.

SHARP'S GUIDE TO INVESTORS.—

HARP'S GUIDE TO TRUSTE E.

SHARP'S GUIDE TO TRUSTE E.

SHARP'S GUIDE TO SHAREHOL KRS.

Dividends 10 to 20 per cent. per annum on present outlay.

For reliable information and safe investments, paying and dividends,

GHARP'S INVESTMENT CIRCULAR, For reliable information and safe investments, paying sod dividends,
Consult SHARP'S INVESTMENT C:RCULAR,
GRANVILLE SHARP and Co., Stock and Sharedealers, 32, Pc:stry, London, E.C.
Circular, 6d. per copy; annual subscription, 5s.]

M. R. E. J. BARTLETT, STOCK AND S:IAREDEALER,
30, GREAT ST. HELEN'S, E.C., LONDON, has SPECIAL BUSINESS in Great Laxey, Tin Hill, Uny, Don Pedro, West Godolphin, and Summer Hill
shares.

MR. E. J. BARTLETT directs attention to his Selected List of Securities, paying from 10 to 15 and even 20 per cent. Application to be made at his offices.

E. J. B. is a BUYER or SELLER of West Godolphin shares at closest quotations. He advises the purchase of these shares. Full and reliable information on amplication.

MR. E. J. BARTLETT, having extensive connections in all the mining districts, is always in a position to advise or direct intending investors as to the merits of any undertaking now before the public. References given and required when necessary.

OFFICES, -30, GREAT ST. HELEN'S, LONDON. E.C. Bankers: City Bank.

Business transacted in every description of securities at closest market prices, tree of commission. GREAT SOUTH CHIVERTON continues to improve, and shares should be secured

GREAT SOUTH CHIVERTON continues to improve, and shares should be secured at once.

Lovell Consols.—This is the cheapest property we can direct attention to, and no time should be lost in purchasing.

WHEAL TRELAWNY—Shares secured at present prices will pay at least 100 per cent. profit within tweive months.

GOLD MINES.—Great caution should be exercised before investing money in this class of security. While home mines pay from 10 to 20 per cent., we are at a loss to understand the motive for sending capital away from England, to end in loss of capital and disappointment of dividend.

Our "Investment Circular and Financial Record," forwarded post free on application, and should be consulted by all who wish to invest their capital without risk, with a certainty of good dividends.

Bankers: London and Westminster Bank.

CHONTALES GOLD COMPANY.—FULL PARTICULARS of the DIFFERENT CLASSES of SHARES can be obtained on application to Mr. J. H. Murchison, No. 8, Austinfriars, E.C.

MR. T. ROSEWARNE, 81, OLD BROAD STREET.

LONDON, has BUSINESS in the following shares for eash or time on Bedford Consols.

East Carn Brea.

Bedford United.

East Lovell.

East Lovell.

East Russell.

Chiverton Moor.

Prince of Wales.

Rhydtalog.

Rhydtalog.

Ross Grande.

St. John del Rey. ROSEWARNE, 81, OLD BROAD STREET, Chiverton acc. Chontales. Clifford. Devon Consols.

Chontales,
Clifford
Devon Consols,
Don Pedro.
Drake Walls.
Don Pedro.
Drake Walls.
Don Pedro.
Drake Walls.
Don Pedro.
Drake Walls.
East Caradon.
Marke Valley.
North Treskerby.
North Treskerby.
North Treskerby.
North Treskerby.
North Treskerby.
North Grofty.
North Treskerby.
West Drake Walls.
Wheal Agar.
The should no ore be found in the 65 cross-cut, and I am sorry to say it is very poor.
Should no ore be found in the 65 the reserves will soon dinhish, as my agent enly valued them at 1000 tons some time ago. Put this as 81. per ton, less 31, per ton to take it away, and what are the shares worth after this rate? The next thing I expect will be a new engine, or plutwork to be changed. Shares are 55s. to 65s., and should be soid immediately.
I am a SELLEE for time on below the market prices.
T. R. can recommend three mines for a safe rise within the next four months.
Money advanced on good mining shares. Office hours from 10 to 4.
Bankers: Bank of England.

MESSRS. J. TAYLOR AND CO., FINANCIAL, MINING, AND GENERAL AGENTS, 17, CROSS STREET, MANCHESTER, have the following SHARES FOR SALE:—
10 North Downs. 50 Great Mona (second 40 Penbale United. 10 Great Wheal Vor. Issue).
J. T. and Co. recommend the immediate purchase of Great Mona.

M. R. E.D.WARD BREWIS, PALMERSTON BUILDINGS, 34, OLD BROAD STREET, LONDON, E.C., has FOR SALE. 1:00 of commission:—25 Prince of Wales, 56s.; 2 Wheal Seton, 286; 15 Chontales, £34; 10 Frontino, £36; 30 Mineral Rights, £34; 50 Glen Alun, £36; 20 West St. 1:08, 68, 3d.; 5 North Treskerby, £19; 5 Rhosesmor, £5: 56 Ebury, £116; 12 Liney Phillips; 20 Westminster; 20 North Crotty, £234; 10 Don Pedro, £234; 5 Fronting 1:00 Fro

50 East Bottle Hill, 10 Cashwell, 5 Roscellff and Tolcarine, 2 Buller, 5 West Corrawall Grante (Limited to £10), £9 paid, to pay 55 per cent. Copper up again.

J. S. and Co. are SELLERS, 1, PINNER'S COURT, OLD BROAD STREET, LONDON, E.C.

J. S. and Co. are SELLERS, for cash or the account, of shares in any of the undermentioned mines, at quoted prices:—
Anglo-Brazilla, 108.
North Downs, £1 38. 6d.
North Downs, £1 38. 6d.
North Treskerby, £1 88 5d.
North Treskerby, £1 88 5d.
North Treskerby, £1 88 5d.
North Torty, £2 178. 6d.
North Torty, £2 188.
North Torty, £

M. P. J. A. M. E. S. S. T. O. C. K. E. R.,

PALMERSTON BUILDINGS, OLD BROAD STREET, and MINING
EXCHANGE, LONDON, E.C., STOCK AND SHAREDEALER in all kinds
of Stock Exchange and Mining Securities.

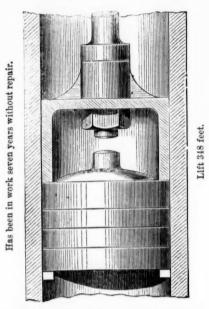
Established Twenty Years.

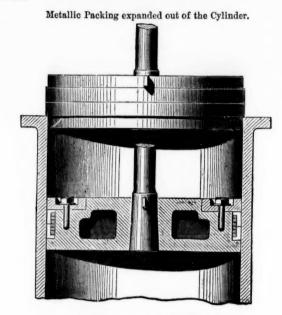
Moncy promptly advanced on shares.

Bankers: London and Westminster, Lothbury

## PLATT MATHER AND

# MILLWRIGHTS, ENGINEERS, AND MACHINE MAKERS. SALFORD IRON WORKS, MANCHESTER.





COLD WATER PUMP FOR DEEP LIFTS.

AIR-PUMP BUCKET.

PISTON IN THE CYLINDER.

MATHER and PLATT beg to call the attention of ENGINEERS and USERS of STEAM POWER to their PATENT PISTONS, AIR PUMP BUCKETS, and COLD WATER PUMPS. The estimation in which these Pistons, &c., are held is shown by the fact that 4760 have been made, as well as by the following Testimonials from gentlemen whose large experience and extensive practice enable them to judge of their qualifications:-

" Bridgewater Collieries, Walkden, Bolton-le-Moors, October 26, 1867. "Gentlemen, - During the last 19 years, commencing in 1848, I have put in upwards of 33 of your patent metallic pistons and pump-buckets, into 49 engines and 20 pumps, under my care at the Bridgewater Trustees' Collieries. I can bear testimony to the very efficient and economical working of the same, and feel confident that with ordinary care they will give general satisfaction, wherever brought into use, possessing, as they do, many practical advantages over other pistons and buckets, being simple, durable, and effective. I have one piston (No. 671) which has been working daily for more than 15 years, one (No. 1586) 10 years, and one (No. 2246) over 7 years, without cost of repairs or trouble of any kind, except occasional cleaning. The smooth and highly polished condition of the cylinders during this length of time convinces me that the action of the metallic packing is so equable and perfect as to render the piston steam-tight and self-adjusting, without producing any appreciable

friction. I have had two of your patent metallic pump-buckets working daily for over seven years, one lifting 300 feet, and one 348 feet, and both are yet performing good duty. I am now putting in one of 10 inches diameter patent buckets, to work 10 strokes, of 8 feet 4 inches per minute, under a pressure of 12 atmospheres, and feel confident of success, thus showing the superiority over other

buckets, more especially where long lifts and simplicity are required. I herewith hand you an order for a 53-inch diameter piston and rod complete, also air-pump bucket, 264 inches diameter and rod complete. Hoping you will forward the same to these collieries as early as practicable,

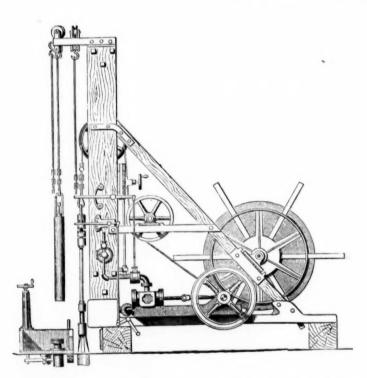
"I remain, Gentlemen, yours very respectfully, "JESSE TIMMINS, Colliery Engineer.

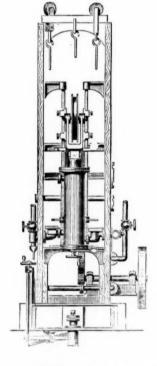
" Frampton Cottrell, near Bristol, October 31, 1867.

"GENTLEMEN,-I have ordered direct, or included in specifications of engines which I have prepared, upwards of 100 of your pistons and buckets, between the years 1850 and 1867, and I feel convinced they are the best pistons that have come under my notice, and if any proof was wanting as to my opinion of them, it may be found in the fact of my ordering the last 70 inch piston from you "I remain, Gentlemen, yours truly, "WILLIAM BAILEY. for our present works.

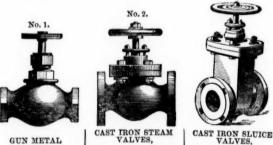
" Messrs. Mather and Platt, Salford Ironworks, Manchester."

"Messrs, Mather and Platt, Salford Ironworks, Manchester."





M. and P. beg to call attention to their Revised List of Prices of VALVES, TAPS, &c. They also request the notice of Water Companies and Hydraulic Engineers to their IMPROVED SLUICE VALVES for Water. The slides have Gun-metal Facings, are of Wedge form, and when screwed down are tight on both sides :-No. 9.







IAI'S.		VALVES A
re.	Price.	Bore.
ches.	£ s.d.	Inches.
A	0 4 0	2
6	0 4 6	3
	0 6 0	4
************	0 8 6	5
4	0 11 0	6
2	0 14 0	7
2	0 18 0	8
4	1 2 6	9
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	18	55	0	0	18	27 32 38 43 49	6 16 14 0 14 16 6	

The attention of those interested in Metallic Mining is called

IMPROVED BUDDLE. OR

ORE WASHING MACHINE Which they believe will be found of great benefit

# Improved Patent Earth Boring Machines

A considerable number of these Machines has been in most successful operation for some years in exploring for minera coal and the boring of Artesian wells, for supplying many towns, manufactories, &c., with water. Upwards of 50 bore-holes, from 6 in. to 24 in. diameter, representing in all 20,000 ft. of boring, have been sunk in various parts of the world, through rocks of every form and degree of hardness, from the New Red Sandstone to the Igneous formations, as well as Chalk and the London Clay.

The Machine is worked entirely by steam-power, requiring a small boiler, from 6 to 12 horse power, according to diameter of the hore-holes. The framing is made of wood, to render the Machine of easy transport.

The rate of boring is not appreciably decreased as the depth increases, as a flat rope is used in place of rods in the old system.

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#### WATSON BROTHERS' MINING CIRCULAR.

WATSON BROTHERS, MINING AGENTS, STOCK AND SHARE DEALERS, &c. 1, ST. MICHAEL'S ALLEY, CORNHILL, LONDON.

MINING AGENTS, STOCK AND SHARE DEALERS, &c. 1, ST. MICHAEL'S ALLEY, CORNHILL, LONDON.

MESSRS. WATSON BROTHERS beg to notify to their friends and the public generally that Mr. W. H. Cuell has retired from the firm, in accordance with a clause in the deed of partnership; and having also sold to the remaining partners all his right, property, and interest in the business hitherto carried on by J. Y. Watson, F. G.S., NAFOLEON FREDERICK WATSON, and himself, under the name of "WATSON and Cuell," the same will be carried on in future by Mr. J. Y. WATSON and Mr. N. F. WATSON, and will be carried on in future by Mr. J. Y. WATSON and Mr. N. F. WATSON, and the most sincere thanks for the great patronage bestowed and confidence reposed in the firm for 24 years, and to assure their friends and clients it will be their carnest endeavour to merit a continuance of both.

Messrs. WATSON BROTHERS have made arrangements for continuing their weekly Circular, which has had a large circulation for many years, to the columns of the Mining Journal, their special reports and remarks upon mines and mining, and state of the share market, will in future appear in this column. In the year 1843, when Cornish mining was almost unknown to the general public, attention was first called to its advantages, when properly conducted, in the "Compendium of British Mining," commenced in 1837, and published in 1843, by Mr. J. Y. WATSON, F.G.S., author of "Gleanings among Mines and Miners," "Records of Ancient Mining," "Cornish Notes" (first scries, 1829), "Cornish Notes" (second scries, 1863), "The Progress of Mining," with statistics of the Mining Interest, annually for 21 years, &c., &c. in the Compendium, published in 1843, Mr. WATSON was the first to recommend the system of a "division of small risks in several mines, ensuring success in the aggregate," and Messrs. WATSON BROTHERS have always a selected list on hand. Perhaps at no former period in the annals of mining has there been more peculiar need of honest and experienced advice in regard to

ways equal the expectations they may have held out in a property so fluctuating as mining.

Messrs. WATSON BROTHERS having agents and correspondents in all the mining districts, and an extensive connection among the largest holders of mining property, have the more confidence in tendering their advice on all matters relating to the state and prospects of mines and mining companies, and are able to supply shares in all the best mines at close market prices, free of all charge for commission.

to supply shares in all the best mines at close market prices, free of all charge for commission.

PRINCE OF WALES.—On Tuesday last the agents, after boring 5 ft. in advance of the end, came to the conclusion that the lode had been cut through, and commenced driving east, where the water is increasing, and ore hourly expected. If our readers will refer to our remarks on February 22, we said, "should the tode, when cut through, be poor, it may get rich in driving east and veest, for there have been poor places in the levels above." We should, of course, much rather have seen it cut into rich, as it would have saved the violent fluctuations in shares, and prevented many holders from selling, through the alarm cry of the "bears." Of the future of the mine the agents are as sanguine as ever. When the lode was cut into in the 110 at West Chiverton, it was poor (though worth 50), to 160, per fathom in the level above), and it took is weeks to get through it, during which time the same outcry was raised as that we have lately had in the Prince of Wales—shares were knocked down 10. per share, and many people got frightened, and sold out. In driving east and west a few feet, however, the ore came in, worth 60. to 700, per fathom; and a course of ore has been gone through (in the 110), for 57 fathoms long, worth in places 801, per fathom, and, on an average, over 504, per fathom. All lodes are poor in places, and no abareholder in such a property as Prince of Wales, who looks to the property isself, and not to share jobbing, should regard cutting the lode poor when there have always been such indications from the level above that a rich lode would be met with in driving east and west. Under date of March 9, Capitain Gifford writes ns—"if feel assured that the 65 will be found good in driving both east and west, as such a long run of ore ground, with a course of ore in both ends, cannot fail, to make large deposits of ore, or in other words, hold down many, very many, fathoms below the 65. Other parties can do as they ple

fathoms below the 65. Other parties can do as they piease, but x shall not not not, and not sell."

WEST CHIVERTON.—We have just had a thorough inspection made of this mine, and shall publish the report next week. In the meantime, anyone can learn the substance of it, by applying to us.

CHIVERTON MOOR.—We have also had this mine inspected, and the remarks under the head of West Chiverton apply here.

PRINCE OF WALES—"H." (Bath.)—There is no truth whatever that the engine has been (or is likely to be) overpowered by the increase of water from the crosscourse in the 55 north; and the party referred to should be compelled to give up the name of the author of the report. There is no fear whatever but the present engine will drain the mine 50 to 100 fathoms deep.

SATURDAY, MARCH 7.—Market very quiet. Prince of Wales, Chontales, and West Frances shares chiefly dealt in. Prince of Wales, 57s. 6d. to 60s.; West Chiverton, 62 to 64; West Frances, 25 to 30.

MONDAY.—The market is steady. West Frances shares in demand, at 25 to 30; Prince of Wales, 57s. 6d. to 59s. 6d.; Great Retailack, 234 to 314; Chiverton Moor, 614 to 616; Chontales Gold, 334 to 376; Wheal Buller, 15 to 17; Marke Valley, 644 to 616; Clifford, 534 to 6.

TURSDAY.—Great excitement on the market this morning. Prince of Wales shares from each of the shares dropped to 52s. 6d. sellers, and largely dealt in; Chontales shares in active demand, at an advance of 7s. 6d. per share; Prince of Wales, 50s. to 52s. 6d.; Chontales, 45 to 44; West Frances, 26 to 28; Greaville, 27s. to 29s.; West Chiverton, 63 to 64; Chiverton Moor, 64 to 63; Great Wheal Vor, 18 to 19; Great Laxey, 17 to 18; Seton, 85 to 85.

WEDNESDAY.—The tone of the market is very much better to-day. Prince of Wales shares in active demand, at 54s.; West Chiverton and Chiverton Moor, 64 to 7; West Chiverton, 63 to 65; Chivates, 54s. to 56s.; Chiverton Moor, 64 to 7; West Chiverton, 65 to 65; Chontales, 4 to 44; West Frances, 25 to 30; Grenville, 27s. to 29s.; Great Wheal Vor, 18 to 19; Seton, 84 to 86; Grenville, 27s. to 29s.; Great Wheal Vor, 18 to 19; Seton, 84 to 86; Grenville, 27s. to 29s.; West Chiverton, 63 to 65; Chiverton Moor, 64 to 67s; Grenville, 27s. to 29s.; Wheal Mary Ann, 20 to 21; West Frances, 25 to 30.

FRIDAY.—The dealers are chiefly occupled in settling the fortnightly account, which is very heavy in Chontales and Prince of Wales shares. The market is active for Prince of Wales shares, which have been done at 57s. 6d.; West Chiverton, 53 to 55. Other things about the same.

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## STATISTICS OF THE MINES OF CORNWALL AND DEVON, WITH OBSERVATIONS UPON THEM.

BY THOMAS SPARGO, STOCK AND SHAREDEALER. GRESHAM HOUSE, OLD BROAD STREET, LONDON, E.C.

I beg to inform the mining interest that my work, under the above title, for 1866 and 1867 is now ready. It contains the following particulars—viz., the geological position, present prospects, names of purser, manager, and secretary, with statement of the annual returns of each mine during the last two years, and of total dividends paid to the present time. The work is iliustated by a map of Cornwall and Devonshire; geological district maps, divided into eight sections, in which will be shown the boundary lines of each parish, height of hills, sources of rivers, &c.; maps of 8t. Just, 8t. Ives, Marazion, Helston, Gwinear, Chiverton, Bodmin, Liskeard, Devon Great Consols, Ashburton, and Exmouth mining districts, showing boundary lines of each property, with the lodes, &c., traversing them.

It also contains transverse and longitudinal sections of Dolcoath Mine (kindly supplied by the late Captain Charles Thomas); section of workings in Botallack Mine (supplied by the manager, 8. H. James, Esq.); longitudinal sections of workings upon the main lode in Great Wheal Vor and Presavean Mines; geological map of the Fowey district (supplied by Major Davis, R.M.); historical account of the Devon Great Consols, and of all the principal mines in the two counties, including the following—

PLANS AND SECTIONS.

PLANS AND SECTIONS.

BOTALLACK MINE—Section of Main Lode,
CORNWALL, PHYSICAL AND GEOLOGICAL MAP—Showing Boundary
Lines of Parishes, &c.
CORNWALL—Parliamentary Divisions of,
—Eastern Division of,
—Eastern Division of,
—Western Division of,
—Western Division of,
DEVONSHIRE—Parliamentary Division of,
DEVON GREAT CONSOLS MINING DISTRICT,
DOLCOATH—Longitudinal Section of Main Lode,
—Transverso Section of Mine,
FOWEY AND PAR DISTRICT,
GREAT WHEAL VOR DISTRICT,
METAL LODE—Longitudinal Section of,
LISKEARD DISTRICT,

LISKEARD DISTRICT.

LISKEARD DISTRICT.
MAP OF CORNWALL AND DEVON.
MARAZION DISTRICT.
PERRANZABULOE DISTRICT.
REDRUTH, GWENNAP, AND CAMBORNE DISTRICT.
ST. JUST DISTRICT.
ST. JUST DISTRICT.
TAVISTOCK.
TRESAYEAN—Longitudinal Section of Main Lode,
WEST DEVON CONSOLS—Surface Plan of.

MINES.

East Tolgus. East Treskerby.

Fowey Consols. Frank Mills. Grambler & St.

Garlidna. Godolphin. Goschen. Gernick.

WEST DEVON CONSOLS—Surface Plan of. WEST DOLCOATH MINE—Surface Plan of. Abraham Consols Balnoon.
Billia.
Budnick Consols.
Boscawen.
Boscundle. Bodmin Consols. Bray Down. Brewer, Bell Vean. Buller and Basset, Burra Burra. Binner Downs, Redford United. Beeralston & Beerferis. caswell. Bartinney. Balleswidden. Bosweddan and Wheal Castle. Bottallack.

Boscean.
Brea Consols.
Baimynhear.
Bolingey.
Basset Consols.
Bottle Hill.
Bridford Consols.
Birch Aller.
Cargoll. Cargoll. Cathedral. Crowan Consols. Camborne Vean Camborne Veal Copper Hill, Crane, Cook's Kitchen, Carn Brea, Carbona. Carn Brea,
Carbona,
Carrack Dews,
Carleen Wheal Vor,
Carzise,
Carvach United,
Criddis,
Creegbrawse and Penkevill,
Caradon United,
Comford,

Comford. Clijah and Wentworth. Chiverton Wheal Rose. Charlotte United. Carn Vyvyan. Crenver and Abraham. Cornubia. Cusoey.
Cupboard Hill.
ConsolidatedMines,The
Cardren Consols.
Carharrack.
Calvadnack. Camborne Consols. Craddock Moor. Caradon and Phœnix. Caradon Consols. Caradon Consols.
Caradon, The.
Caradon, The.
Calstock Consols.
Crowan and Wendron.
Cornelloe.
Carne Escalls.
Croft and Vor.
Carnyorth.
Cape Cornwall.
Cuddra.

Cape Cornwall
Cuddra.
Card Camborne.
Clifford Amaigamated.
Charlestown United.
Caradon Vale.
Colquite & Callington.
Christow Consols. Duffield.
Duke of Cornwall.
Dunsley Wh. Phœnix.
Drake Walls. Drake Walls. Devon and Bedford. Devon & Cornwall Uni. ng Dong. von Great Consols.

Duke. Dollar. Dolcoath

Dollar.
Dolcoath.
East Alfred.
East Alfred.
East Alfred.
East Basset & Grylls.
East Basset & Grylls.
East Bettha.
East Bettha.
East Bettha.
East Caradon.
East Caradon.
East Caradon.
East Godolphin.
East Godolphin.
East Godolphin.
East Grat Work.
East Kitt Hill.
East Margaret.
East Polbren.
East Polbren.
East Polbren.
East Polbren.
East Penhauger.
East Rosewarne.
East Rosewarne.
East Tresavean.
East Tresavean.
East Tresavean.

North Downs,
North Exmouth,
North Frances,
North Grambler,
North Hallenbeagle,
North Hallenbeagle,
North Jane,
North Lewant,
North Lelesure,
North Levant,
North Pool,
North Providence,
North Providence,
North Propidnick,
North Phonix,
North Rosewarne,
North Rosewarne,
North Rosewarne,
North Treskerby,
North Trelether,
North Trelawny,
North Meal Busy,

East Trumpet.
East Trumpet.
East Wheal Reeth.
East Wheal Seton.
East Wheal Grenville.
East Wheal Buller.
East Wheal Abraham.
East Wheal Eilen.
East Wheal Eilen.
East Wheal Damsel.
East Wheal Music.
East Wheal Music.
East Wheal Music.
East Wheal Agar.
East Wheal Agar.
East Wheal Agar.
East Wheal Agar.
East Wheal Virgin.
East Wheal Jane.
East Wheal Jane.
East Wheal Jane.
East Wheal Jane.
East Wheal Jane. North Trelawny,
North Wheal Busler,
North Wheal Busler,
North Wheal Busler,
North Wheal Metal,
North Wheal Metal,
North Wheal Seton,
North Wheal Seton,
North Wrey,
North Wrey Consols,
Noble Dale,
Nangiles, East Wheal Neptune. East Wheal Lovell. Forest, The. Fowey and Par. Furze Hill Wood Con. & St. Aubyn. Noble Dale,
Nanglies,
Nawton St. Cyres,
Oket Tor,
Old Gunnislake,
Old Tolgus,
Old Tolgus United,
Penhallow Moor, East.
Paul's Downs,
Pedu-au-drea,
Penhale Moor,
Penbugle,
Prince Coburg,
Penstruthal,
Pennanee, Gernick.
Goonzion.
Godolphin Hill.
Gurlyn.
Gilasgow Wheal Gill.
Gonamena.
Garden.
Gover.
Great Brigan.
Great Caradon.

Gover.
Great Brigan.
Great Caradon.
Great Caradon.
Great Cowgas.
Great East Lovell.
Great North Downs.
Great North Toigns.
Great North Toigns.
Great North Signs.
Great Oslow Consols.
Great Polgooth.
Great Polgooth.
Great South Chiverton.
Great South Chiverton.
Great Tregune.
Great Wheal Busy.
Great Wheal Metal.
Great Wheal Alfred.
Great Wheal Alfred.
Great Wheal Fortune.
Hawke's Foint.
Huel Michel.
Huel Michel.
Herland.
Hallimanning & Croftgothal.
Hawkmoor. Pennance. Penhaldarya. Pengenna. Penhauger, Perran Wheal Virgin. Polladras Downs. Polladras Downs.
Poldory.
Perran St. George.
Polhigey Moor.
Prince Arthur.
Prince of Wales. Phœnix. Penrose.
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Pelyn Wood.
Pendarves United.
Providence.
Penhale Wheal Vor. Penhale Who. Penhalls. Retanna Hill. Realton. Rose Consols.

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Mill Moor.
Metha.
Maudlin. Swanpool. St. Austell Consols. Silver Valley.

ose and Mawla. Stencose and Mawla.
Silver Brook.
Sortridge Consols.
Sithney Wheal Vor.
St. Just Consols.
St. Just United & East
St., Just United & East
St., Just United & East
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St. Day United.
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South Alfred Consols. Mill Pool.
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Marke Valley.
Morwah and Zennor.
Mineral Bottom,
Mellanear. Mellanear.
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New Wheal Rose.
New Wheal Frances.
New Wheal Ston.
New Wheal Towan. outh Alfred. outh Alfred Consols. outh Buller and West

New Wheal Towan.
New Wheal Lovell.
New Wheal Lovell.
New Wheal Vor and
East Metal.
New Quester
New Gast Metal.
New South Caradon.
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South Providence (SichSouth Rosewarne,
South St., George,
South Towan,
South Tresavean,
South Wheal Crofty,
South Wheal Charlotte,
South Wheal Charlotte,
South Wheal Fortune,
South Wheal Frances,
South Wheal Frances,
South Wheal Frances,
South Wheal Grenville,
South Wheal Grenville,
South Wheal Grenville,
South Wheal Leisure,
South Wheal Seton,
South Wheal Seton,
South Wheal Tolgus,
Trewavas,
Trethellan,
Trewavas,
Trethellan,
Trewollack,
Trevaskis,
Treven,
Trungle,
Tehdidy,
Treven Wheal Rose,
Trettell and Messer,
Trettell and Messer, West Providence. West Princess of Wales West Prince of Wales. West Polmear. West Polmear. West Pheenix. West Par Consols. West Rose Down. West Rosewarne Untd. West Rose Down.
West Rosewarne Unto
West Sharp Tor.
West St. Ives.
West St. Ives.
West St. Ives.
West Stray Park.
West Tolvadden,
West Tolvadden,
West Towan.
West Towan.
West Towan.
West Treasury.
West Wheal Basset.
West Wheal Basset.
West Wheal Damsel,
West Wheal Frances,
West Wheal Jane.
West Wheal Jane.
West Wheal Jane.
West Wheal Jane.
West Wheal Indianal
West Wheal Marzaret
West Wheal Prosper.
West Wheal Prosper.
West Wheal Togus,
West Wheal Togus, West Wheal Seton.
West Wheal Tolgus.
West Wheal Trelyon.
West Wheal Vor.
West Wheal Virgin.
Wheal Ann United.
Wheal Anson.
Wheal Arundel.
Wheal Abraham.
Wheal Abraham.
Wheal Abraham. rerew Wheal Rose, retoil and Messer, olvadden. Trencrom.
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Trebarvah.
Trevcole. Trevoole. Trefulack. wheal Aoranam Wheal Agar. Wheal Anna, Wheal Andrew. Wheal Arthur. Wheal Albert. Wheal Albort. Wheal Albort. Wheal Albort. Trefulack.
Trefloweth.
Trethellan and W
Trethellan.
Treviskey.
Trebelyan.
Tregullow Consols.
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Treskerby.
Trelyon Cousols.
Tolcarne.
Treworlis.
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Tresavean & Tretrup.
Trup.
Treleigh Consols,
Tincroft.
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Tolgus—Old.
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West Briton.
West Cargoll.
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West Crinnis. West Caradon. West Craddock Moor. West Clifford. West Condurrow. West Clifford.
West Dondurrow.
West Drake Walls.
West Dolcoath.
West Forey Consols.
West Forey Consols.
West Godolphin.
West Godolphin.
West Great Work.
West Martha.

Wheal Crofty. Wheal Dyke. Wheal Daniel. Wheai Eliza.
Wheai Exmouth.
Wheai Fursdon.
Wheai Fortune.
Wheai Friendship.
Wheai Falmouth.
Wheai Gray.
Wheai Glyn.
Wheai Glyn.
Wheai Girland.
Wheai Guskus.
Wheai Golding.
Wheai Golding. Wheal Eliza. Wheal Golding, wheal Helen, Wheal Hawkins, Wheal Herman, Wheal Herman, Wheal Hender, Wheal Hartley, Wheal Harmony,

Wheal Harriett.
Wheal Ida.
Wheal Jane.
Wheal Jewel.
Wheal Kenneggy.
Wheal Kenneggy.
Wheal Kitty (Lelant).
Wheal Kekewish.
Wheal Lemon. Wheal Liberty, Wheal Ludcott, Wheal Lovell, Wheal Mary (Perran-Wheal Mary Consols. Wheal Mary Great Conwheal Mary Great Corsols.

wheal Mary.
Wheal Mary.
Wheal Mary Ann.
Wheal Mary Florence.
Wheal Mexico.
Wheal Margery Wheal Mexico.
Wheal Margaret,
Wheal Margaret,
Wheal Montague,
Wheal Montingue,
Wheal Norris,
Wheal Nelson,
Wheal Nelson,
Wheal Ocean.
Wheal Owles,
Wheal Prosper,
Wheal Prosper, Wheal Prosper,
Wheal Pelink & Clinton,
Wheal Pilik & Clinton,
Wheal Pollard,
Wheal Pollard,
Wheal Pollarmon,
Wheal Pollarmon,
Wheal Prospidnick,
Wheal Prospidnick,
Wheal Rose,
Wheal Rose,
Wheal Rose,
Wheal Rose,
Wheal Rose, rose). Wheat Ramooth. Wheat Reen. Wheat Sparnon. Wheat Seton. Wheal St. Cleer. Wheal St. Andrew. Wheal Sthney & Carn-Wheal Sithney & Carn-meal.
Wheal Sicily.
Wheal Spinster.
Wheal Speedwell (Brea)
Wheal Speedwell (St. Agnes). Wheal Tallack. Wheal Trapher Wheal Towan. Wheal Treasure, Wheal Trannack Wheal Treasury, Wheal Tehidy, Wheal Treasury.
Wheal Theldy.
Wheal Thomas.
Wheal Thomas.
Wheal Tremayne.
Wheal Tremayne.
Wheal Unity.
Wheal Unity Wood.
Wheal Unity.
Wheal Unity.
Wheal Unity.
Wheal Unity.
Wheal Virioria.
Wheal Virioria.
Wheal Venton.
Wheal Venton.
Wheal Venton.
Wheal Veylan.
Wheal Veylan.
Wheal Wallis.
Wheal Wallis.
Wheal William.
Wheal William.
Wheal William.
Wheal William.
Wheal Wheal William.
Wheal Jon.
Yarner.

SILVER MINING IN UTAH TERRITORY, U.S.

[From our Correspondent.]

Utah is known to abound in many of the useful, and, it is believed, also precious metals. Coal of fair quality, and in considerable quantities, has been found in various parts of the territory, and both lead and iron have been produced for many years past by the Mormons living in the southern counties. That so little is known of its wealth in the precious metals is owing to the fact that the leaders of this people discouraged the searching after them, it being contrary to the policy of the church to have its subjects engage in mining pursuits, wherefore but little was known of the mineral resources of Utah until the soldiers stationed at Sait Lake City brought them to light. No placer mines of any extent have yet been found in this territory, but a number of large lodes, heavily charged with argentiferous galena, have been opened at Rush Valley, a short distance sour the set of the state of the set o

NEW TREATMENT OF SILVER ORES-THE STETEFELDT FURNACE. NEW TREATMENT OF SILVER ORES—THE STETEFELDT FURNACE,—The new furnace for chloridising silver ores, which was invented and patented by C. A. Stettefeldt, of Austin, Nevada, United States, had its first trial at the Murphy Mill, Twin River district, about 30 miles north-west of Belmont. About 2 tons of pulp was passed through the furnace in 2 hours and 20 minutes, after which it assayed 32 per cent. The furnace is pronounced a perfect success, and will, no doubt, supplant those now in common use. Not attempting a full description, the following will give your readers an idea of it:—It is a chimney, or stack, through which a flame passes from furnaces at the base, the flame entering at two sides near the bottom; it is surmounted by screens of several sizes, into which the pulp, mixed with the proper quantity of sait, is passed. These selves are kept in motion, by which a slight shower of pulp is discharged into the flame, the heat of which is sufficient to accomplise the work of chloridation before reaching the bottom, a disciplent to accomplise the work of chloridation before reaching the bottom, a distance in the present instance of about 25 ft. Below the point at which the flames enter there is an orifice at which the roasted pulp is discharged. It is estimated that a single furnace of this description will perform all the roasting work required by the Murphy Mill—with a battery of 20 stamps; and it is understood that one will be immediately built there, the one tested being only an experimental affair. In the present test the pulp was holsted to the top of the stack in buckets, and the selves shaken by hand. The permanent one will have an elevator from the battery to the screens on the top, which will be driven by machinery. It is believed that the Stetefeldt roasting furnace will create a revolution in the method of working silver orce, as the system appears to be more thorough, is less laborious, and being accomplished in a shorter period of time than that now in common use—it requiring by the latter from six to eight hours to roast about 1000 ibs. of pulp—lessens the cost of reduction to a considerable extent, and thousands of tons of ore of a low grade, which heretofere could not be worked on account of the expense of roasting, can by means of this invention be reduced at a profit.

## Oniginal Connespondence.

### THE WORKING OF DOUBLE SHIFTS IN COLLIERIES.

SIR,-Much having been written of late with regard to working double shifts in collieries, perhaps you will allow me to give my opinion, as a practical man who has had 30 years' experience in the mines of Durham, and four years in those of Yorkshire. I see that Mr. Brown, the viewer of Mr. Nixon, gives it as his opinion that the single shift system is to blame for many of the explosions in our mines. Now, in my opinion, the single shift has little or nothing to do with the cause of explosions; but which, in most cases, are attributable to the want of such men as Mr. Brown as managers, who has worked his way from a trapper-boy to become the viewer of extensive collieries, want of such men as Mr. Brown as managers, who has worked his way from a trapper-boy to become the viewer of extensive collieries, and under some of the most eminent men in the kingdom. Happening to have undergone the same training myself, it appears to me that the fearful loss of life resulting from explosions is, in a great measure, due to the want of discipline, and neglect in carrying out the first and second general rules. The great object should be when gas makes it appearance to have it removed as speedily as possible, by taking the gir up to the face of the workings, and getting the gas out of the "gobs:" where this done, those fearful explosions which every now and then startle the country would be unknown. That double shifts, whilst having little or no bearing so far as the prevention of accidents by explosions in collieries are concerned, have a tendency to injure the health of the miner is a fact beyond dispute. In the North of England, trapper-boys and men are called out of their beds from a quarter past three to four o'clock in the morning, to be ready to start work at five o'clock, and to keep on without stoping for meals to until three o'clock in the afternoon. As it is considered imprudent to allow the trappers to have a lamp in certain places, they have to sit in their dens in darkness all the hours stated. I have known a boy in the North, some nine years of age, go with his father to the pit at two o'clock in the morning, and have seen him returning again at seven o'clock in the evening, whilst his mother had hold of his hand, having gone out to meet him and assist him home. This was under the double shift system.

Now, instead of keeping the pits constantly going by shifts, let our colliery managers see that the underground stewards are pro-

home. This was under the double shift system.

Now, instead of keeping the pits constantly going by shifts, let our colliery managers see that the underground stewards are properly qualified for their situations, and that the ventilation in mines is in every way efficient, and then double-shifts will not be needed. If the present rules for the ventilation of collieries, as enacted by Act of Parliament, be enforced, it is scarcely possible that an accident of a serious character could take place. Now, the first general rule states that "an adequate amount of ventilation shall be constantly produced in all coal mines," &c., so that "the working places and travelling roads shall, under ordinary circumstances, be in a fit state for working and passing therein." Rule 2 enacts that "all entrances to any place not in actual course of working and excusion, and suspected to contain dangerous gas of any kind, shall be properly and suspected to contain dangerous gas of any kind, shall be properly fenced off, so as to prevent access thereto." Now, Sir, let those two rules be carried out in their integrity in every respect, and, without double shifts, and we shall hear of less fatalities from explosions in A PRACTICAL MINER,

### THE WORKING OF DOUBLE SHIFTS IN COLLIERIES

SIR.—Having lately seen numerous letters in your valuable Journal on the subject of working double shifts in the South Wales mining district, as a preventive of explosions, or, at least, the fearful loss of life usually attending such, I would remind your correspondents that explosions are more likely to occur at changing time than at any other period of the day, when a larger number of men are actually underground than with the single shift. I would remind the owners also, as well as the managers, that (at least in this district) it is an admitted fact that when the same quantity, or nearly so, can be raised in a single shift, the cost of production is from 2d, to 4d, per ton less than when obtained in two shifts.

I feel so convinced, from the experience of neighbouring mines, of the truth of the above statement that if circumstances regretized.

the truth of the above statement that, if circumstances permitted, I would introduce to the mine under my charge the single shift principle. In the first place, more time is obtained for repairs, admitting of such being done better, and at less cost, than when requisite to half do it, and then leave it till next night. Secondly, the work being better done, interruptions to the coal work will be of less frequent occurrence. Thirdly, a better control is obtainable, with a much smaller staff. WESTPHALIA.

## TREATMENT OF POOR COPPER ORES.

SIR,—On reading in the Mining Journal of last week an article under the above heading, I was gratified to learn that at length some parties had summoned courage, and determined to test the validity of Henderson's patent for the treatment of poor copper ores; and having assisted in carrying out the same process nearly 20 years ago, venture to ask the favour of your inserting a few lines on the subject in your next impression, especially as my object is to endeavour to clear up the doubts attaching to Mr. Henderson's claim to be the

to clear up the doubts attaching to Mr. Henderson's claim to be the inventor of the said process.

The process consists in simply roasting cupreous sulphurets of low quality with common salt, the respective quantities varying with the composition of the particular ore, cinder, or regulus under treatment, in such a manner that all the copper may be converted into soluble chloride, then followed the lixiviation of the roasted material, and the precipitation of the copper generally by means of metallic iron; for however Mr. Henderson may endeavour to disguise the true nature of the process, and render it complicated by subjoining rules for the exact regulation of the sulphur, descriptions of muffle-furnaces, modes of volatilising and condensing the copper, &c., the process is really a most simple one, and to all intents and purposes was carried out practically, and proved a commercial success, many years before the date of Mr. Henderson's patents.

Respecting the proportion of sulphur and copper, which is made so

on of sulp much of in the article referred to in last week's Journal, I will briefly explain how the product alluded to is obtained, and which instead of being the talented invention of Mr. Henderson is purely accidental, being a residue produced in the manufacture of sulphuric acid, a process that has been largely worked for at least half a century; process that has been integry worked for at least half a century; immense quantities of iron pyrites, containing a small proportion of copper, being consumed annually for this manufacture. The pyrites are burnt in small kilns, and the draught of air so regulated as to burn off the bulk of the sulphur, and at the same time to keep the heat spliciently low to avoid the fusion of the contained. heat sufficiently low to avoid the fusion of the ore; the consequence is that under these conditions the lumps of pyrites are not perfectly oxydised, and there remains in the cinder from 3 to 6 per cent. of sulphur—just the magic quantity so nicely arranged by Mr. Henderson that the proper proper into allowing in the proper of the second sulphur into allowing in the proper of the second such control in the proper into allowing in the proper of the second such control in the second such phur—just the magic quantity so nicely arranged by Mr. Henderson for the conversion of the copper into chloride in the process of roasting with salt; it is, however, preferable to have a small excess of sulphur, and thereby avoid the necessity, which Mr. Henderson admits, for adding hydrochloric acid to dissolve the copper which escapes chlorisation in the roasting-furnace when the sulphur is not in excess, for the free hydrochloric acid proves in the process of precipitation a source of considerable loss, the iron dissolved being largely in excess of the equivalent of copper precipitated.

As to the volatilisation of the ghloride of copper, the project to obtain it by this means is a simple absurdity, and was speedily abandoned by those who attempted it, for under no circumstances can more than a small proportion of the copper be so separated; when the process of roasting with salt is properly conducted, the quantity of copper volatalised is utterly insignificant, and after deducting

of copper volatalised is utterly insignificant, and after deducting

from the product of the condenser a small portion carried off mechanically, and easily recovered in chamber flues, the remainder would not even pay for the iron to precipitate it, for it must be re-membered that a quantity of hydrochloric acid volatilised in the pro-cess would be condensed with the copper, and this, it is well known, would dissolve a quantity of iron far in excess of the quantity of copper precipitated.

It is a well-known fact that parties who have adopted Mr. Hender-It is a well-known fact that parties who have adopted Mr. Henderson's additions to the process (for I cannot call them improvements, nor, indeed, are the additions his own ideas, both the condenser and muffle furnace having been tried and abandoned nearly 20 years ago), have laid them aside, and returned to the original reverberatory furnace. I have hitherto abstained from discussing this matter published. licly, but some one having latterly taken it upon him to vaunt the discoveries of others as the wonderful creation of Mr. Henderson's inventive genius, I should be neglecting a duty if I did not endeavour to the resulting that the resulting the property of the resulting that the resulting the resulting that the resulting the resulting that the resulting that the resulting that the resulting that the resulting the resulting that the result POOR COPPER ORES. to throw a little light on the subject. Poor
Assay Office, Crown-court, Threadneedle-street, March 12.

#### HAUPT'S ROCK DRILL.

SIR,—In reply to an enquiry of one of your correspondents as to "what is doing with Gen. Haupt's Machine," we beg to say that we are now prepared to furnish machines, constructed with all the recent are now prepared to furnish machines, constructed with all the recent important improvements of the distinguished inventor, and believed to combine more desirable features than any other single machine ever made for rock drilling. It is equally well adapted to sinking shafts, driving levels, open quarry work, or for any mining, quarrying, or tunnelling purposes. In recent trials it made 250 strokes per minute with only 18 lbs. of steam, which indicates the ease with which it can be operated. It works as well with compressed air as steam. The contractors of one of the most important tunnels now constructing in Great Britain have decided upon the Haupt machine as the best adapted to their purpose, and their selection was made after having personally examined all the other Rock-Drilling or Boring Machines now in use in Europe. The contractors will be ready to use them in two or three weeks, and then parties interested in this important matter can have abundant opportunity to know exactly what is their

matter can have abundant opportunity to know exactly what is their practical success in hard whinstone rock.

Paris, March 7.

BLANCHARD AND MCKEAN.

### MANAGEMENT OF FOREIGN MINING COMPANIES.

MANAGEMENT OF FOREIGN MINING COMPANIES,

SIR,—Last week's Journal contains two letters in abuse of, rather than reply to, some remarks by us on South American mining, and especially gold and sliver mining companies there and in other foreign countries, in the Journal of Feb. 29. In referring to South American mines, which includes all that continent south of the United States, with the exception of our own possessions, we particularly excepted our own territories and those of the States. Our observations regarding gold mining in them are confirmed by your first correspondent, "A Five-and-Forty Years' Miner." Atthough we have not sufficient information to enable us to endorse his attacks on "directors and superintendents," his long mining experience has apparently failed to secure for him the favour of the former class of gentlemen. We cast, however, no doubt on his mining experience, and sincercly trust, for the benefit of himself and others, that his opinions may be verified by the results at Taquaril.

A master in mining need not be also a master of analogies, and in them your correspondent fails when he writes—"People might as well be advised to wait to see if there are any more failures before they deposit any more money in banks, particularly in London and Liverpool," as to wait and see the result of investments already made in foreign mining before they put more money into that trade. Certainly if three-fourths of the banks in London and Liverpool produced no results from deposits, and no possibility of recovering them, "people" would not require advice on the subject.

Your second correspondent, "Tyro," evidently not a very exact man, objects to our including "two silver mines" in the list, because he condemns opinions which he has not read. We beg to mention that "gold and silver" mining is particularly named in the quotation in the Journal of Feb. 29, and "modern mines in South America," without any distinction of metal; while Copiapo is a special reposition.

Your correspondent, "Tyro," might have giv

## THE CHONTALES MINES.

SIR.—Ever since I have been a shareholder in this company I have been constantly annoyed and persecuted with letters "private and confidential," and circulars ad lib, in reference to its not only gloomy prospects, but absolute and certain rain. It is really siekening the amount of gratuitous information which has been conveyed to me respecting this company, advising me, if I would only save a little from the wreck, to soil out at once. Of late the efforts have been redoubled, and every morning's post brings its quota of abuse. I should think from the means adopted, that these friendly and "disinterested" parties must take every shareholder to be an absolute dolt and a fool. We know full well in what enterprise we have embarked, and are perfectly willing to abide the result.

A SHAREHOLDER.

## WHEAL EMILY SILVER MINING COMPANY.

WHEAL EMILY SILVER MINING COMPANY.

SIR,—In reply to "A Sharebroker," I will first remark that Wheal Emily is not a silver-lead mine. The report which he enquired for is published every week in the Mining Journal. No prospectus has been issued. The mine is worked on the Cost-book Principle; and, as it has only lately been re-opened, no meeting of shareholders has taken place since the formation of the company, and, as yet, no accounts have been published. It is not usual to furnish accounts under such circumstances to a total stranger. The books of the company are open for inspection only to shareholders. Every facility has been given for inspection of the mine to parties properly introduced. I refer the "Sharehocker" to an advertisement in another column of silver ores for sale, which is a sufficient reply to the ill-natured remark about the mushroom. It does not follow because the business is conducted on the mine that the purser should constantly reside there. There was nothing vague or evasive in the reply given to the "Sharebooker;" the inline is worked in a mining-like manner, and we have nothing to disguise or conceal.—Callington, March 9.

[For remainder of Original Correspondence see this day's Supplement.]

[For remainder of Original Correspondence see this day's Supplement.]

THE TIN TRADE,-Messrs. Von Dadelszen and North (March 6) write—When we notice the reduction of our stock here, and remember that about two months must clapse before we can have any fresh arrivals of importance from the Straits, during which time our stocks will have failten to a lower limit than any reached for many years past; when we consider, too, that our tin here is in remarkably strong hands, and the stock in Holland is well held, we may look with confidence to the immediate future, and anticipate with the return of brighter days a little sunshine for the long-overclouded article—Tin. The quantity of tin here and in Holland on Feb. 29 was as follows, compared with the three preceding years:—

1867. 1866. 1865.

| 1868. | 1867. | 1866. | 1865. | 1865. | 1865. | 1865. | 1866. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865. | 1865

Total tons ...... 8010 9798 10,270 934:
The quantity of tin now affoat for England is 957 tons, against 267 tons last year; to the Continent 60 tons, and to America 783 tons.

year; to the Continent 60 tons, and to America 783 tons.

COPPER TRADE.—Messrs. Vivian, Younger, and Bond (March 13) write:—Considerable transactions have taken place in Liverpool in Chili produce, about 1300 tons of fine copper having been disposed of. The sales consist of 300 tons spot bars, good brands, at 721. 10s. to 731. 10s.; 300 tons Lota hors spot at 721.; 125 tons Baseo bars, to arrive, at 731. to 741.; 250 tons Lota ingos, principally epot, at 761. 100 tons Urmeneta ingots, at Swansen, at 761. 10s.; 400 tons of regulus, and 400 tons of ores, to arrive in Liverpool, at 15s. per unit, 400 tons of regulus, and 400 tons of ores, to arrive in Liverpool, at 15s. per unit, 400 tons of home to the first business has been done in Australian, and Waliaroo has been dealt in at 801. 10s. and 811. cash, also 811. two months' prompt. Some important sales of English raw have taken taken place at 761. 10s. for tough spot, and 771. 10s. to 781, smelters' terms. For 150 tons best selected 821 was paid, but this price is an extreme one, and was accorded under exceptional circumstances. On the whole, the recent improvement in the market seems to be well sustained.

Diet,—On the 6th inst., Evan Jones, manager of the Valencia State Quarries, Iroland, and upwards of 30 years in the employ of Mr. Magnus, of the Pimileo Stateworks, to whom he was sincerely attached, and whom he served with a rare devotedness. His loss will be deeply felt by the workmen at the quarries, by whom he was valued as a just and considerate man.

## Meetings of Mining Companies.

### GREAT WHEAL VOR UNITED MINING COMPANY.

The quarterly general meeting of shareholders will be held on Wed-

#### THE GREAT NORTH LAXEY MINING COMPANY.

An ordinary meeting of shareholders was held at the offices, Austinfriars, yesterday,—Mr. W. C. BULLER in the chair.
Mr. J. H. MURCHISON (London Manager) read the notice conven-

ing the meeting.

The report of the directors stated that the continued improvement of the lode in depth induces the hope that some substantial results are at length near at hand. Every exertion will be made to get the shafe down to another of the lode in depth induces the hope that some substantial results are at length near at hand. Every exertion will be made to get the shaft down to another level (the 110), and to open out the mine as rapidly as the nature of the ground will admit. Since the last general meeting two calls of 2s. 6d. have been made, and the balance of assets, after charging the costs to the end of January, is 7151. 19s. 10d., and there are at surface 20 tons of lead ore, worth about 2002. There have been sold in the last 12 months 120 tons of lead ore, for 16071, making the total sold by the present company 229 tons, for 31317. The directors believe that, notwithstanding the past disappointments, the mine will yet be brought to success.

The report of Capt. Rowe (the agent) was read, as follows :-

that, notwithstanding the past disappointments, the mine will yet be brought to success.

The report of Capt, Rowe (the agent) was read, as follows:—

Murch 7.—During the last year the engine-shaft has been completed to a 96 fm-level, where we have cut out trip lodge and elstern-plat, and fixed penthouse, &c., and further carried down about 5 fms., or to a total depth of upwards of 100 fms. below the adit level. The lode, during the year's sinking, has been mostly smail and unproductive, until within the last 3 fc., when a favourable change took place in the north end of the shaft (since, also, extending to the south end), and the lode opened out from it of 3 ft. in width, with an unusual flow of water, and containing good stones of lead and blende. This improvement, I now think, requires that we should continue the sinking of the shaft to a deeper level, the exact depth of which should be determined by the appearance of the lode in sinking; and as we do not expect, with our now more complete surface water-power, to have a recurrence of our last year's difficulties in keeping the shaft sufficiently clear of water to continue the work without interruptions, we may, within six months, be in a position to drive out levels at a depth of 10 ft of fms. The 96, our deepest level, has been driven north about 5 fathoms, in which the lode has been very small; but we have here, at this moment, an important change, as the level has struck into a "longh," with every appearance of the lode quickly opening out in size and into good ground. So far as at present seen, the lode has changed from rock to spar and quartz, with a little lead ore, though not to value. I look for considerable improvements in this level very shortly, not only from its present appearances, but from the more settled character of the lode throughout in depth, and also because the sump sinking below the 84, about 4 fathoms ahead of the present 95 end, is opening out good ground, worth 2 tons of lead ore per fathom, and daily improving. There can be no doub The following report was also read :-

The following report was also read:—
March 10.—The tode at the shaft is now from 2 to 4 ft. wide, having a strong, masterly appearance, and continues with a mixture of lead and jack throughout, but not at present of much value. The water is still flowing freely out of the north end of the shaft, and looks very promising for lead. The lode in the 9c, driving north, is now from 2 to 3 ft. wide, and is improving daily in size as well as character, composed of kindly spar, quartz, and good stones of lead and jack; the end is worth 5 or 6 cwts. of lead per fathom. The lode in the 8c, driving north, still looks changable, with a little open ground coming in at the bottom of the level, with a mixture of lead, but not of much value; the vein is about 2 ft. wide, and appears to get stronger. The sump sinking below the 84 north 12 down about 2 fathoms, and is still looking well, with a good ribo flead worth 2 tons per fathom. The cross-cut in the same level, driving east, continues in hard ground, without any change. The 73, driving south, is a very good looking lode, made up of kindly spar rock, and a mixture of jack on the hanging wall; the lode is about 4 ft. wide, and shows a promising appearance. I think we are getting near to ore ground. The stopes in the roof of the 63 south are improving again, with a good rib of lead going up at the top of the stopes, worth from 16 to 26 cwts. of lead per fm.—J. HORSLEY.

The CHAIRMAN having expressed his regret at the unavoidable ab-

The CHAIRMAN having expressed his regret at the unavoidable absence of the Chairman of the company, stated that in order to open the discussion of the meeting he would formally move the reception and adoption of the reports and balance-sheet. —Mr. W. TUXFORD seconded the proposition. —Capt. Rows, in reply to different shareholders, explained that there were three primary points in the present stage of development—the deepening of the engine-shaft, proving the north, and testing the south ground. Some time since it became a question as to whether sinking should not be temporarily suspended, partly from the consideration that they were drawing to the close of their capital, and partly because it was deemed judicious to test the ground at the depth of 100 fathoms by an extension of levels. It would be necessary to put out two levels for ventilation and proof, having in view the unexplored ground northwards, under the idea that the shoots of ore originally found, south of the shaft would prove to be continuous north in the new ground, precisely upon the same footing as shoots of ore were found in Great Lasvey. This, of course, as a primary object, would still be carried out. But it had subsequently been determined to continue the sinking of the shaft to the 116 fm. level, instead of stopping at the present bottom, the reason being that very recently an important improvement in the shaft had taken place. Although there did not at present appear to be anything in connection with the sinking it was uncessionably to the interests of the sharpholders to continue th The CHAIRMAN having expressed his regret at the unavoidable abthere did not at present appear to be anything in connection with the sinking likely to pay at once, yet in the lode in the bottom of the shaft there was a decided improvement in its character and prospects. Under any circumstances, it was unquestionably to the interests of the sharcholders to continue the sinking mention that the 110 in Great Laxey was a very remarkable level, and the same level in Great North Laxey might also determine the course of its forture. In the south part of the mine there was a considerable extent of unexplored ore ground intervening between the present isnkings and Great Laxey. The operations in that direction had opened out some pipes of ore, which were certainly sufficient to justify the prosecution of two levels in that direction had opened out some pipes of ore, which were certainly sufficient to justify the prosecution of two levels in that direction. There also a cross-lode ahead, which at the present time was one of the leading objects in the Snaefell Mine, and this would intervening a direction. There are north set. It was possible this intersection would take place within 50 fathoms of the present 60 and. In Great Laxey these cross-lode dropped into the great north set. It was possible this intersection would take place within 50 fathoms of the present prospects hold, and the value of the lode in the shaft improve in sinking, it was quite possible the available capital, with the proceeds from the mine, would yet secure the success of the undertaking.

A SHARBHOLDER asked whether the south workings were paying their expenses?——Capi. Rowe said the 60 fm. level would more than pay its expenses, but until the 70 came into the pipe of ore ground the produce from the south case anything of important depth to reach, and that seldom above that point was anything of importance found. The deepeat point yet reached in Great North, and the was informed that in the 181e of Man the level of the sea was a very important depth to reach, and that seldom above that point was anything of impo

sheet was put and carried unanimously. The retiring directors and auditor

sheek was put and carried unanimously. The feating directing and earlied unanimously. The proposition of Mr. Beckwith, seconded by the Chairman, a unanimous vote of thanks was passed to Captain Rowe for the satisfactory manner in which he continued to conduct the operations at the mine.

Captain Rowe, in returning thanks for this renewed expression of confidence, said that he fully endorsed the remarks of the Chairman—they truly had had an anxious time of it, and during the past year in particular. The directors had been anxious, he also had been very anxious, had done his utmost hitherto to secure the success of the mine, and really believed they were now drawing near to that event. He would continue to use all his ability and power in order to bring about that long-desired object.

A vote of thanks to the Chairman and directors terminated the proceedings.

### THE QUEBRADA COMPANY.

An extraordinary general meeting of shareholders (convened by requisition) was held at the City Terminus Hotel, Cannon-street, on Tuesday, Mr. Osborne Stock, M.P., in the chair.

Mr. James Wright, C.E. (manager) read the notice convening the meeting, which (in the words of the requisition) was for the purpose of appointing a committee to enquire into the present position and future prospects of the company, and also for revising the Articles of Association, and to report thereon to the shareholders, at a meeting to be specially convened for the purpose.

the meeting, which (in the words of the requisition) was for the purpose of appointing a committee to enquire into the present position and future prospects of the company, and also for revising the Articles of Association, and to report thereon to the shareholders, at a meeting to be specially convened for the purpose.

The CHAIRMAN said that the present meeting had been called in accordance with the terms of a requisition, signed by a certain number of shareholders; and in order to save time he would state the course which he thought it would be desirable for them to pursue. The requisition was sent into the board by Mr. Gledhill, and, therefore he (the Chairman) would ask Mr. Gledhill, or any of his supporters present, to state their candidates the course of the course of

"That a committee of shareholders he appointed to enquire into the present position and future prospects of the company, and to revise the Articles of Association, and to report thereon to the shareholders at a meeting to be specially convened for that purpose."

Mr. Rogeis Fexton said, as a supporter of the board, he came forward to second the proposition. Let there be appointed an impartial committee of investigation to see if a new course could be struck out for conducting the enterprise, and bring it to a auccessful issue within the limits of the present capital, the directors, who were suspected of doing something, and in order to find out this something the shareholders are called together. What was the result? Why, an unnearing nothingness, (Hear, hear.) Was the credit of the company to be depreciated, and the time of the shareholders wasted, by such contemptible of the company of the shareholders wasted, by such contemptible of the shareholders wasted the appointment of a committee of investigation. Glear, hear, if the shareholders was the shareholders was it, he asked, fair to attempt to re-open them? I did not shareholders was it, he asked, fair to attempt to re-open them? I did not be disputed. (Hear, hear.) Mr. Tayton said the accuracy of accounts to attempt to re-open them? I did not be such as a shareholder wasted wasted to be shareholders and the shareholders had not suggested to metallize which had been urged by Mr. Gi

1 180

THE MINING JOURNAL.

The mesting until stire the call became dae. What was the fast? Why, the directors convessed the meeting some days before it became dae, so as to afford all adarshooters all in opportunity of voting upon the prevent oceasine. He resolution was consequently regarities.

The standard of the prevent of the consequent of the consequent was not all the prevent oceasine. He was not now who coursed sequently and it was the had been eightly interinicated in the reconstruction of the consequent was not all the part of the had been eightly interinicated in the reconstruction of the consequent was not all the part of the had been eightly interinicated in the reconstruction of the consequently and the standard of the standard of

be flowing with milk and honey; and all this within 21 days of Southampton, and liked to us socially by a fornightly mall. And yet but a handful of people in this country know anything about 11. Millions are not wanting for doubtful investment abroad, but here is an enterprising company (the checked); and company checked in the country of the countr

"The nature of the charges brought by Mr. Gledhill against the directors being of too trifling a character to affect either the personal honour of the board or the position of the company, and the meeting having full confidence in the board of directors as at present constituted, hereby resolve that it is inexpedient to appoint a committee of investigation."

to appoint a committee of investigation."

Mr. Councillor CLAPHAM (Leeds) seconded it.

Mr. GEDGE then addressed the meeting at some length, during which he stated that the various charges put forth were believed to be true, the information having been given to him by somebody whose name, notwithstanding the almost unanimous demands of the meeting, he declined to disclose.

Mr. Consul HEMMING also attempted to deliver himself, but the meeting declined to give him a hearing. Upon his assurance, however, that he would not detain them more than five minutes he was allowed to proceed. The Consul having occupied more than the allotted time in referring to matters which had no bearing upon the question before the meeting, he was compelled involuntarily to resume his seat, which held during the most indescribable uproor.

Mr. GLEDHILL expressed a desire to withdraw his resolution, but the meeting insisted upon its being put.—The CHAIRMAN then put the amendment, when

"THE TREASURES OF THE EARTH."

The mineral wealth of the country is of such importance to all classes of the community, seeing that it is to its possession that every branch of our national industry and commerce owes its existence, that a popular account of the "Treasures of the Earth; or Mines, Minerals, and Metals," \* will prove interesting to a very large number of readers. The circumstance that the author dedicates the book to his children will suffice to show that it is adapted to the wants of those who require an attractive style; and upon perusing the work it will be found that such a style has been maintained throughout; he has well succeeded in combining amisement with instruction, and appears at the same time to have been careful that the information given shall be thoroughly reliable. Mr. Jones renduds his readers that when Gustavia Adolphus, king of Sweden, wished to descend into the copper mines of Fahlun, his courtiers begged him not to risk his life. "A king," he replied, "Is not worth a straw who does not look into his treasury." On arriving at a freshly-hewn chamber, where the copper ore shone bright and gilttering, he exclaimed, "What should such a potentate be who possesses a place like this?" and observes that these were the wise words of a great monarch, who could appreciate the bounty of Providence in storing up the treasures of the carth for the welfare of his people.

Visits to mines, the treatment of metals and minerals, and the various uses to which they are applied are each referred to; yet technicalities have been so carefully avoided that the book may be put in the hands of children with the unmost confidence that it will interest them. The earlier scriptural records of the preclous metals, the mining operations of the ancients, alchemy, and the philosopher's stone are, of course, referred to; whilst in the second chapter there is a good account of where the preclous metals are found; and in subsequent chapters the reader is introduced to the silver mines of South America, coals and

### "TECHNOLOGICAL DICTIONARY."

The enormous progress which has been made in science and manu-

"TECHNOLOGICAL DICTIONARY."

The enormous progress which has been made in science and manufactures during the past half-century, both in England and on the Continent, has resulted in the coining of so many new words to express ideas of a special nature, and with which the general public have no conception, that to the practical man ordinary dictionaries have long since become comparatively valueless; which is the more annoying owing to the intimate connection that has spring up between the industrial classes of the various countries whose inventors have contributed to extend the facilities for intercommunication of improvements and discoveries, and for the establishment of permanent friendship. To remedy the inconvenience arising from the inability of men of the same trade, but of different nationality, to communicate with each other, the late Mr. J. A. Bell undertook the arithous task of compiling a complete technological dictionary in the three principal languages of Europe—English, French, and German—the third volume of which has just been issued after careful revision by the most competent authorities connected with the several branches of industry referred to.

The "Dictionnairo Technologique"\* embraces the technical terms employed in the arts and manufactures; in civil, military, and naval architecture; in bridge building, road making, and railway works; in mechanics; in machine shops, artillery, navigation, mines and smelting works, mathematics, physics, chemistry, mineralogy; and indeed in every art and science connected with the general business of every-day life. Now, the value of a work of this class, of course, depends entirely upon the amount of reliance that can be placed under the supervision of Mr. E. Althans, mining engineer, of Halle, whilst Mr. L. Bach, engineer, of Linden, near Hanover, has given bis attention to the terns relating to the construction of machinery and steam-engines; Major J. Hartmann, to those connected with military affairs; Mr. Hoyer, of the Polytechnic School of Hanover,

## MINING NOTABILIA

CHONTALES GOLD AND SILVER MINES.—At last we are beginning to see the effect of all the "bearing" of these shares, a strong reaction having already set in; and this is but the first gleam of the coming sunshine, for when the machinery at Pavon is in working order I think we may calculate upon grinding per month 2000 tons of ore, the yield of which may be only I oz, per ton, or it may be as high as 2 or 3 ozs., unless the samples sent home are not to be relied on as a fair average. Then we shall have all the rich piltars of ore from Consuela, which alone will be some thousands of onnees. If all goes well, the additional wheels at Pavon will be proceeded with, when there will be sufficient power to crush and grind 8000 tons per month. San Antonio and 8t. Doningo are likely to turn out well, and I fancy the large lode at Pavon will provultimately very rich in silver. If the directors would be more liberal in their payments for wages to the natives we should retain good men, and there would be fewer mishaps.

OLD RUSSELL is getting another good pile of ore ready for market.

The TAVISTOCK DISTRICT is showing increased prosperity; several mines are looking well, and only require a better price for copper, which will, no doubt, soon be obtainable. Many mines will then give dividends instead of making calls.

PRINCE OF WALES.—The next sale of ore from this mine will be

making calls.

PRINCE OF WALES.—The next sale of ore from this mine will be good. Some difference of opinion existed between the various inspecting agents as to the produce of the ore, which led to an assay of samples being made by Mr. Jenkins, of Callington, when, to their great surprise, it was proved that the two stones assayed gave—one upwards of 25 per cent., and the other upwards of 28 per cent., this is from the 55 west. A question exists as to whether the lode in the 65 is cut, as the water has not gone down. Let the shareholders be careful not to be frightened by the "bears."—COPPER.

THE HINGSTON DOWN DISTRICT.—It was some years since predicted by the discoverer of Devon Great Consols that the whole of Hingston hill and valleys would be dotted with engine-houses, and give employment to thousands of miners. West Prince of Wales and West Drake Walls will be in the market shortly, and there is every indication of their becoming prosperous.

PENHALE UNITED SILVER-LEAD MINES.—Operations are progressing satisfactorily. A parcel of lead will soon be dressed up for market, and overy exertion is being made to get to the bottom of the mine.

ST. JUST AMALGAMATED MINES.—These extensive mines are now opening up very well, and in the course of a few months it is expected that profits will be made monthly. These unions are down to the 100 fm. ievel, and there is every prospect of their opening up well in depth.

COLQUITE AND CALLINGTON.—Operations are being vigorously pushed on, and according to a statement recently made by a first-rate practical miner great success may be looked for. They have a spiendid-looking lode in Colquite shaft, and it is no wonder that the progress of the mine is watched with so much interest. PRINCE OF WALES.—The next sale of ore from this mine will be

## Mining Correspondence.

#### BRITISH MINES.

BRITISH MINES.

BEDFORD CONSOLS.—J. Mitchell, March 11: Saturday last being our pay and setting day, the following bargains were let:—A cross-cut to drive south of endetting day, the following bargains were let:—A cross-cut to drive south of and setting day, the following bargains were let:—A cross-cut to drive south of an object, at \$8,10s. per fathom, 1 fm, stent. The ground at this point is still mixed with spar and capel, containing spots of mundle and copper ore, and letting out a little water. A cross-cut to drive south of air-shaft, in the middle add it level towards the Gawton lode, by four men, at \$6.10s, per fathom, 2 fms, stent. The joints of the killas in the present end are thickly impregnated with spots of mundle and copper ore, and the ground is very wet; this looks well for the lode when intersected.

BEDFORD UNITED.—J. Phillips, March 11: We have put in pent-house and completed the shaft to the 90 fm, level, and resumed sinking. The lode in the shaft is 4 feet wide, worth about 3 tons of ore per fm. We are driving by the side of the lode in the 75 casts. The stopes in the bottom of this level are suspended, until communication is made to the \$60 fm. In the \$60 fm. Level is sunk to the 75, this winze is in advance of the 75 cad, which will be communicated in about a month. The lode in the winze is about 2 feet wide, worth from 3 to 4 tons of ore per fm.

BEDOLA UR.—H. R. Harvey, March 12: The ground in the 100 west, on the Milwe lode, continues fair for progress; there is a good deal of water issuing from the lode. The 10s south, on the 8t. Vincent lode, is getting into better ground, and looking more promising for ore. The rise in the back of the 10s is rather stiffer. Hughe's stope, in the back of the 77, is looking better; we got some fine lumps of ore from there to-day. Jones's pitch, in bottom of the 77, is looking better; we got some fine lumps of ore from there to-day. Jones's pitch, in bottom of the 77, is looking better; we got some fine lumps of ore from there to-day. Jones's pitch is

by day work, lode worth 20 ewts, of ore per cubic fathom. We are obliged to suspend the driving of the 40 end west for a time, as the stuff broken from this level is in the way.

CAPE CORNWALL.—Richard Pryor, Francis Hosking, March 10; We set the following bargains on Saturday last: -The 100 fm. level to drive east of engine-shaft, by four men, at 61, per fathom; the lode is 4 feet wide, and producing some fine stones of tin. The winze to sink below the 90 fm. level, east of shaft, by six men, at 71, per fathom; the lode is 3 feet wide, producing saving work for tin. The 70 fm. level to drive west of engine-shaft, by four men, at 32, 58, per fathom; the lode at this point is 4 feet wide, and producing stones of copper and low quality tinstuff.

CARADON CONSOLS.—S. Bennetts, March 10: The south shaft has been opened out sufficiently for a single skip-road to bottom; this road is already fixed to the 58, and we hope to have it completed to the bottom by the end of another week. The shaft is now the full length in all places, except a few fathoms between the 34 and 44, and between the 53 and 68, where a little further lengthening will be required, should the pitwork at any time have to be removed from the old shaft to this one. The sinking of this shaft has been continued to the 78 where a cross ent is extended south about 13/5 fms., and north 2½ fms.; at this point Glymo's lode is found much the same as it mostly is by this cross-course, small and unsettled, yet not without good stones of ore; it has been driven on west2½ fms.; in the present end it is getting better defined, more regular, and of a very promising character, and about 1600 will, composed principally of peach, and fluor-spar, mixed throughout with yellow copper ore. The 68 has been further extended west some 7 fms. through ground which has produced from 1 ton to 1½ ton to the fathom, and continues to yield about the same quantity; the lode varies in width from 1 to 3 ft. The lode is this level has thus far been more productive than in the 58 over t

appearance of Ciymo's load from the 28 to the 18, two present these other side lodes will most assuredly also prove productive, and a good and lasting mine be the result.

CARGOLL.—J. Grose, R. Tyzzer, March 10: Michell's engine-shaft is sunk 8½ fms. below the 140; the lode is 3 ft. wide, composed of much blende, with good stones of lead ore. In the north end the ground is rather stiff, with a rich leader of lead ore, 4 in. wide. In the 130 south the lode is divided by a borse of killias, 4 ft. wide, with a small leader of lead on the west side, and on the east side the lode is 1½ ft. wide, composed of quartz and lead ore—a promising level. A rise in the back of the 110 north, from point of horse, is producing good stones of lead ore—Purser's Shaft: In the 60 the caunter lode is 2½ ft. wide, composed of flookan and soft quartz, with fine lead interspersed throughout, letting down water, and likely to improve. In the 40, north from Sargent's, the lode is large and leady. We sold on Friday last 131 tons of blende, realising 4701; and on Friday next we shall sample about 67 tons of lead.

CARN CAMBORN E.—John Truscott, March 11: The engine-shaft is sinking below the 70, the ground in which is favourable. The 70 is driving west, where the lode is poor. In the 60 west the lode is worth 121, per fm. In driving the cross-cut north at this level the ground is without alteration. The men in the 50 west are rising in back for ventilation, where the lode is worth 101, per fm. CHIYERTON.—J. Juleff, John Borlase, March 12: Cookney's shaft is sunk below the 126 fm. level 2½ fms.; lode 8 ft. wide, composed of flookan, spar, mundic, and spots of lead. We have cut a part of the lode in the 120 fm. level cross-cut north, and we are still ress-cutting in search of more lode, as the water is still issuing from the end. The 110 east is producing stones of fead. In the 100 east of Murray's, we are cross-cutting my search of the lode in the 120 fm. level cross-cut north, and we are still eross-cutting in search of more lode, as the w

of fiat-rod shaft, is producing 6 ewits of lead per fathom. In the rise above the 65, west of the flat-rod shaft, the lode is worth 5 cwts. of lead per fathom. The stopes continue to look well.

COLQUITE AND CALLINGTON UNITED, J. Evans, T. Doldge, March 12: the 72 bits of the flat-rod shaft, the lode is worth 5 cwts. of lead per fathom. The stopes continue to look well.

COLQUITE AND CALLINGTON UNITED, J. Evans, T. Doldge, March 12: the 20 bits of the worth 15 children and for the last 5 fathoms drivage is spotted with silver-lead. The Colquite shaft is now down below the adit level about 10 fathoms on the lode; the lode here is from 5 to 6 ft. wide, composed of silver-lead and mundic, and of the latter will produce 5 tons per fathom. We are very much pleased indeed with the appearance of the lode, and we fully expect in going down that a course of silver-lead will be met with. Every department is carried on with all possible speed, and economy strictly adhered to.

CRELAKE.—William Skewls, William Hooper, March 12: In the 74 fm. level west the lode is 1½ foot wide, yielding a little mundic. The lode in the 62 fm. level west is 3½ fect wide, composed of mundic, spar, and copper ore, but not to value. The lode in the winze, sinking below this level is 2 feet wide, composed of strong mundic, capel, and copper ore, worth 61, per fathom. The back of this level, is worth 71. per fathom, and in No. 2, 91. per fathom is value, such as the second of mundic, capel, and copper ore, worth 61, per fathom. From this point to the end is 11 fms., where we have set another cross-cut to be driven south, with a view of intersecting the same part of the lode, to prove if it has not been thrown in a contrary direction by the sildes between this and the No. 1 stope, in back of this level, is worth 61. per fathom. The lode in No. 2 slope, in back of this level, is worth 61. per fathom. The lode in No. 2 slope, in back of this level, is worth 61. Per fathom. The lode in No. 2 slope, in back of this level, is worth 61. Per fathom. The

the lode in the 142, east of the cross-cut, the lode is very large, and producing good work for the. As far as seen the lode is worth 201, per fathom. The ground in the 180, driving wate by the side of the lode, is still favorable for progress, and continues of the same value as last reported on.

DEVON AND CORNWALL UNITED.—T. Neill, March 10: George and Charlotte; The lode in driving west of the cross-cut is looking very promising—the produced of the lode. The lode in the 21 west was the worth 10 of or or per fathom. The lode in the 21 west was is worth 10 on of ore per fathor. The lode is the 23 west size worth 10 on of ore per fathor in the 22 week we have cut a small cross-course, which has for the present discovered to the lode. It hops, however, for an improvement to the west. The pitches of the has been considered the lode. It hops, however, for an improvement to the west. The pitches of the has been considered the lode. It hops, however, for an improvement to the west. The pitches on the has been considered to drive east. I have no doubt whatever but that we have discovered some good branches of tin. 4 fms. south of the old workings, on which we have commenced to drive east. I have no doubt whatever but that the hard the lode is the lode of lode of the lode of the lode of lode of the lode of lode of the lode of the lode of lode of the lode of lode

EBURY.—F. Evans, March 11: The lode driving east of Evans's shaft, in the 54, is 3 ft. wide, and producing excellent lead, worth about 1 ton per fathom. We are creeting a horse-whim for winding, and shall, after it is completed, drive westward as well.

FRANK MILLS.—J. P. Nicholls, J. Cornish, F. Cornish, March 11: In the 145 north, on the west lode, we continue to get frequent small deposits, or nests, of lead ore, associated with white Iron and quartz, and accompanied by a flookan on the western side. From the very promising appearance of the lode in this end we are daily expecting an improvement. The 145 south, on the same lode, occasionally produces good saving work, and is also looking very promising for an early improvement. The stope in back of this level, on the east lode, is yielding 1 ton of lead ore per fathom. The west lode, in the 130 north, is 2½ ft. wide, consisting of white iron, quartz, and lead ore; a leader on the west part of the lode is yielding 7 cwts, of the latter per fathom, and presenting a better appearance than at any period since starting from the main cross-cut. The stope in the back of this level, south from the cross-cut, on the east lode, is yielding ½ ton of lead ore per fathom. We have got through one part of the lode in the hard cross-cut driving east from the 115 north, which consists principally of white iron and quartz, thickly impregnated with fine lead. We are now into a stiff capel, and think we have more lode still to the east. The stope in the back of the same level, on the cast lode, is yielding ½ ton per fathom. In the 60, driving north from Hayama's old cross-cut, the lode will yield ½ ton per fm. The stope in the back of the same level, on the cast lode, is yielding ½ to no flead ore per fathom, on an average. The tribute department is looking as well, and yielding quite as much lead ore, as for some time past.

GAWTON COPPER.—G. Rowe, G. Rowe, Jun., March 7: During the past week we have been engaged in cutting a trip-plait at the new engine-shaft below the 70 m.

these two points. The stopes on this lode continue to yield the usual quantity of ore. The new lode, in the 78 west, is producing good stones of ore, and improving as we get off the cross-course. In the 68 west the lode is worth 71, per fathom. In the 65 east the lode is worth 142, per fm. In the 52 west the lode is worth 142, per fm. In the 52 west the lode is worth 142, per fm. In the 63 east the lode is worth 142, per fm. In the 63 east the lode is worth 142, per fm. In the 63 east the lode is worth 142, per fm. In the 63 east the lode is worth 142, per fm. In the 63 east the lode is worth 142, per fm. In the 63 east the lode is worth 142, per fm. In the 63 east the lode is worth 142, per fm. In the 63 east the lode is worth 142, per fm. In the 64 inst. GOTHIC.—John Williams, March 12: We succeeded in boring the hole through from the winze to the rise on Monday afternoon, and now the men can work and fork the rise, as the air is much better. We have been drawing from the 40 fm. level the stuff from the rise, and to-morrow four men will begin to rise to the east end of the 40; four men to the west, and four men to the east of the winze. We have about 5 tons of ore ready, and next week I must have three or four more on the floors for dressing ore. I hope to see you on the mine next week to arrange our future workings.

GREAT NORTH DOWNS.—Wm. Rich, C. Bawden, March 11: The lode in King's shaft is worth 151, per fathom for the length of the same (9 ft.); we have a little water in the bottom. Our south shaft continues to be very wet and troublesome for sinking; every exertion, however, is being made in order to sink as fast as possible. The 74, west of Sleggan's, is worth 121, per fathom. The winze below the 69 is worth 101, per fathom. The 64, west of Butler's, is yielding stones of ore, and the ground getting easier for driving. The 64 east is worth 162, per fathom. Butler's shaft is not yet dry. We sampled yesterday 181 tons of tinstone, for sale next week.

GREAT RETALLACK.—G. R. Odgers, J. Harris, March 7: S

and which we believe is destined, when properly developed, to lay open a valuable property.—No. 2 Lode: The engine-shaft to sink below the 30 at the same price as last—290s, per fathom; lode 15 ln, wide, and worth 3 cwts, of silver-lead to the fathom. We have a beautiful channel of ground in this shaft; and we, therefore, think in depth the lode is likely to become a very valuable one. The 30 south by two men, at 42s, per fathom; lode 2 feet wide, with good lumps of lead embedded in quartz and white fron—a strong and masterlylode. The stope above this level by two men, at 17s, 6d, per fathom; lode worth 5 cwts. of silverlead per fathom. The 30 north by four men, at 48s, per fathom to del 15 in, wide also producing good lumps of lead, but not to value; here we anticipate meeting with an improved lode. The slope above this level by four men, at 17s, 6d, per fathom; lode worth 4 cwts. to the fathom. The 20 south by two men, at 90s, per fathom; lode 18 in, wide, of white fron and quartz, and containing stones of lead; here we think, as soon as we meet with an easier channel of ground, that a bunch of lead will be the result. The 20 north by two men, at 55s, per fathom; the ground in this en i has very much improved, and looking far more promising for lead. We have to-day set a winze to sink below this level, where the lode in driving through was worth 2 tons of lead to the fathom; this is a good speculation.

GREAT SOUTH CHIVERTON.—I. Nangarrow, March 11: A tour surgey to.

promising for lead. We have to-day set a winze to sink below this level, where the lode in driving through was worth 2 tons of lead to the fathom; this is a good speculation.

GREAT SOUTH CHIVERTON.—J. Nancarrow, March 11: At our survey to-day the following work was set:—The 20 to drive east, by two men, at 31, per fm.; the lode is 2 ft. wide, and has a good appearance for lead. The rise above the 30, to two men and two byys, at 74, per fm.; this is likely to be communicated with the winze below the 20 in about a week. The 30 to drive west, by six men, at 41, per fm.; the lode looks well; the lead continues, and there is a regular leader towards the bottom of the end. The 40 to drive north, by six men, at 101. 10s, per fathom; the end is getting wet, and the ground is altering as we approach the lode. The 50 to drive north, by six men, at 84. 10s. per fm.; the ground is of the same congenial character for lead as in the upper levels. The 50 to drive east, on the south lode, by three men and three boys, at 51, per fm. The 10de improves in appearance as we drive.

GREAT SOUTH TOLGUS.—J. Daw, March 11: In the 150 fm. level, east of Noel's shaft, the lode is 1 ft. wide, producing 2 tons of ore per fm. In the 150 fm. level, west of shaft, the lode will produce 1 tons of ore per fathom. But we are obliged to suspend it, having an increase of water on particular change to notice in the 75 fathom level cross-cut, south of Hill Brothers engine-shaft. during the past week; the ground continues much the same for driving, and the water is flowing freely from the present end. In the 53, driving west from the erose-cut, on the Baddern lead lode, the ground is favourable for driving, and in congenial strata for minerals; lode looking promising, about 2 ft. wide, and containing occasional spots of lead, mundle flookam, and spar.

HARWOOD.—John Race, March 7: There is no alteration to note in the end

and spar.

HARWOOD.—John Race, March 7: There is no alteration to note in the end of the level going north at Scar Head. The end and stopes east in north string are as last reported. I have set them to drive east in new vein, north of Trough level, which looks very promising—beautiful spar and other minerals. We are up to Morman cross veins in opening into Trough level, and are now open to Trough. The "old men" have done little here but drive their levels about 10 fms. easts of the cross vein in an east and west vein, and about 6 fms. north and south in the cross vein. I will send a sample to sell 20 tons of ore with next week.

and south in the cross vein. I will cause a superior mext week.

HINGSTON DOWN CONSOLS,—Thos. Richards, March 11: Bailey's engine-shaft, sinking below the 140, is not at present so productive; for the length (12 ft.) it is worth 251, per fathom. The 140 east has a very favourable and promising appearance, and is worth full 301, per fathom. The stopes in the bottom of the 130 east are worth on an average 251, per fathom. The stope in the back of the level is worth 201, per fathom. The stopes in the back and bottom of the 130 west are worth 181, per fathom. The stope in the bottom of the 120 east is worth 201, per fathom.

it is worth 254, per fathom. The 140 east has a very favourable and promising appearance, and is worth full 304, per fathom. The stopes in the bottom of the 130 east are worth 181, per fathom. The stopes in the back and bottom of the 130 west are worth 181, per fathom. The stopes in the back and bottom of the 130 west are worth 181, per fathom. The stopes in the bottom of the 120 east is worth 201 west are worth 181, per fathom. The stope in the bottom of the 120 east is worth 201 west are worth 181, per fathom. The stope in the bottom of the 120 east is worth 181 with 181 west per fathom 201 west and 181 continue the drivage as best we can until we suspend operations to remedy this evil. I also intend to sink a winze from the 201 about 20 fathoms west of engine-shaft, which will come through about 10 fathoms in advance of the present end of the 62, and this work can, I think, go on while the shaft is under alteration. The lode in the 40 east is very strong and promising, and is worth 15 cwts. per fathom. I purpose to sample LOVELL CONNOLS.—William Chappell, March 12: We are now making good progress in sinking the new shaft below adit. The lode looking quite as well ast reported, and when sunk to the 12 fm. level, and the ends opened east and west, we shall lay open a good run of tin ground.

MAUDLIN.—J. Tregay, March 7: The new lode, in deep adit level, is producing good stones of grey copper ore, and very promising for improvement.—West Mine: The lode here is composed of gossan, quartz, and spots of copper ore.

MAUDLIN.—J. Tregay, March 7: The new lode, in deep adit level, is producing good stones of grey copper ore, and very promising for improvement.—West Mine: The lode here is composed of gossan, quartz, and spots of copper ore.

MAUDLIN.—J. Tregay, March 7: The new lode, in deep rathom. The stopes in the roof are worth 5 cwts. pot and an avery promising. We have also commenced the erection of whim, &c.—Williams's Shaft: The lode in back of the say and level good spots and stope of the shaft, by sky men a

g get through this shortly, and make good progress. In the north cross-cut we have got into the killas 4 or 5 feet; it is of very good character, and dravouroble for driving. Being now out of the elvan in both cross-cuts, we may expect any day to cut the well-known Penstruthal lode in the south cross-cut, and No. 3 to the first of the control of the

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pretty lode coming towards it from the 20 at Great Retallack, we fairly believe the time is not far distant when we shall make a good discovery here.

NORTH RETALLACK.—G. R. Odgers, March 11: The water this morning is between 4 and 5 fathous below the 10, thus showing it to be draining, but not so fast as we have calculated upon; so soon as possible we shall resume the sinking of it. The lode in the 10 north is a little larger than we stated on Satur-

so fast as we have calculated upon; so soon as possible we shall resume the sinking of it. The lode in the 10 north is a little larger than we stated on Saturday, but no other change, TY.—Joseph Vivian and Son, Wm. Thomas, March 12: We have no change to report on this week, with the exception of the 183 end east, where the lode has lessened in size, now worth 30!. per fathom. The tin stopes are looking very well.

OKEL TOR.—John Rodda, March 12: South Lode: There is no particular change in the 80 east. The lode in the 65, west of Hele's winze, is improved, and will now yield 3 tons of ore per fm. The lode in the winze sinking below this level will yield from 8 to 9 tons of ore per fathom for length of winze (10 ft.). Hele's stope, in the back of this level, will yield 5 tons of ore per fathom. The lode in the 65 fm. level east is improved in appearance, and is producing good stones of ore. Olver's stope, in the bottom of the 50, west of the eastern cross-cut, will yield 5 tons of ore per fathom. Geake's stope, in the back of the 9, west of Bickle's cross-cut, will yield 2 tons of ore per fathom. The stopes on the north lode are looking just the same as when last reported on.

OLD GUNNISLAKE.—H. Rickard, March 11: We have commenced hauling up the old lift to-day, having completed the casing of Michael's shaft to the 81. No time will be lost in clearing up this shaft to bottom. We are putting in tramporad at the 81 cross-cut south, towards the green lode, which will be completed by the end of this week, and will greatly facilitate the clearing on the course of the lode. We are progressing favourably with the 71. The engine is working well.

No time with cleast, and arting up this shaft to botform. We are putting in transmod at the 3th week, and will greatly facilitate the clearing on the course of the lode. We are progressing favourably with the 7th. The engine is working well.

OLD WESTMINSTER.—A. Ede, March 11: I am sorry to inform you that last Thursday night we cut a strong feed of water in Carpenter's shaft; it rose 9 ft. in a few hours; I fear we shall not be able to master is with the whim. We intend trying it a few days longor. The lode in the 22, east of March edition the intend trying it a few days longor. The lode in the 22, east of March edition the end is not so good not lead ore perfathon. We shall finish enlarging No. 3 sump in a few days in the bottom of the 63, when we shall end of the rise. The lode here end is not so good of lead ore perfathom. We shall finish enlarging No. 3 sump in a few days in the bottom of the 63, when we shall end commence suiking it at once. The tribute pitches are much the same as last reported.

PEDN-AD-BREA UNITED.—Wm. Tregay, J. Thomas E. Chegwin, March 7: Sump: The lode in the 140 west end is worth 141, per fathom.—Cobbit of 130 west end is worth 101, per fathom. The lode in the 130 west end is worth 101, per fathom. The lode in the 110 fathom level west rise is worth 141, per fathom.—Obbit in the 110 fathom level west rise is worth 101, per fathom. The lode in the 110 fathom level west rise is worth 102, per fathom. The lode in the 110 fathom level west rise is worth 103, per fathom. The lode in the 104 fathom level west rise is worth 104, per fathom. The lode in the 105 fathom level west rise is worth 104, per fathom. The lode in the 106 fathom level west rise is worth 104, per fathom. The lode in the 106 fathom level west rise is worth 104, per fathom. The lode in the 106 fathom level west rise is worth 104, per fathom in the 90 fathom level west rise is worth 105, per fathom. The lode in the 106 fathom level west rise is worth 104, per fathom in the 90 fathom level west rise is worth 105, per fat

character, and is getting out of the innuence of the blanch and report. Friday next being our pay and setting-day, we will forward you a full report.

ROARING WATER.—H. Thomas, March 10: I have set Gillman's engine-shaft to sik under the 45 to nine men, at 151, per fathom. Everything is now in good order for sinking; but, from the nature of the ground, I searcely think we shall be able to sink more than 10 ft. or 2 fms, per month; very effort shall be made to sink more if possible.

ROSEWARNE CONSOLS.—J. Nancarrow, R. Knuckey, March 9: The water at Sarah's shaft is drained down to the back of the 30 fm, level, and we expect to be sinking the shaft in a day or two, and working the pitches below the 30, The tribute ground on the caunter, above the 30, looks pretty well. The lode in the 70 south-east is improving, the ore is richer; now worth 42, per fm, and is likely to improve. In taking down the side in the 80, we found a branch to the south, but it is hitherto in an unsettled state. There is no other change to notice.

the 70 South-case is infinitely as the property of the test of the south, but it is hitherto in an unsettled state. There is no other change to notice.

SORTRIDGE CONSOLS.—Robert Jackson, March 12: Hitchins's engine-shaft is down 3½ fms. below the 140; the ground is favourable for sinking, and good progress has been made. In the 140, west of the engine-shaft, the lode is 1 foot wide, yielding good stones of ore. In the 140, east of the engine-shaft, the lode is 1 foot wide, yielding good stones of ore. In the 140, east of the engine-shaft, the lode is 1 foot one change to notice in any other part of the mine.

SOUTH CONDURROW.—J. Vivian and Son, W. Williams, March 7: King's shaft has been sunk 4t. below the 82, partly in the horse of granite, but carrying the north part of the lode, which is 1½ ft. wide, composed principally of quartz and chlorite, with a little mundle. The south and main part of the lode is from 3 to 4 feet only from the shaft, and there is every appearance of the two parts again forming a junction in sinking from 5 to 6 fathoms. In the 82 east the lode is 2 ft. wide, composed of friable quartz with a little mundle and black copper ore—a promising-looking lode for copper. In the 70 east the lode is 1½ ft. wide, composed of friable quartz with a little mundle and black copper ore in this end, and we look forward to its again improving; in the same level west we continue the cross-cut south without having yet met with any lode. In the 61 fm. level cross-cut south, east of King's shaft, we are making good progress, the cross-course being favourable, but we have not yet reached the middle lode. In the 61 fm. level cross-cut south, but have not yet reached the south part of the lode. In the 51, east of Old Tye shaft, we have been obliged to drive by the side of the lode, owing to the decomposed of quartz, chlorite, mundle, and black copper ore—a reproducing toes conserved on.

SOUTH DARREN.—John Boundy, March 9; No change worthy of remark thas the force of the lode, only of the harvains throughout

to in the ensuing week. In the 51, west of Vivian's shaft, the lode is 2½ ft. wide, composed of quartz, chlorite, mundle, and black and grey copper ore—a very fine-looking lode. The tin stopes are producing tinstone of about the same quality as when last reported on.

SOUTH DARREN.—John Boundy, March 9; No change worthy of remark has taken place in any of the bargains throughout the mine since our report of last week. We shall sample this week 30 tons of silver-lead ore. All the machinery is in good working order.

SOUTH HERODSFOOT.—W. Goldsworthy, March 11: During the past month the engine-shaft has been sunk 2 fms. 3 feet, making its depth now 6 fms. 5 feet below the 86, and is re-set to nine men at 151. 10s. per fm., stent the month. The ground is all that can be desired, being a beautiful light blue killas, and quite a different channel of ground to any seen in this mine before, and there is not the slightest doubt that the lode when cut at the 100 will be found productive in such beautiful ground as we have at present.

SOUTH WHEAL GRENVILLE.—G. R. Odgers, W. Bennetts, March 7: The omen are making as much progress as they possibly can with the sinking of the engine-shaft below the 30, but we cannot see any change calling for a remark.

ST. JUST AMALGAMATED.—Richard Pryor, William White, R. Wearne, March 11: The following bargains were set on Saturday last:—Eastern Mine: Phillips's engine-shaft to sink below the 30, by six men, at 91. per fathom; the lode at present is disordered by a branch which came in from the hanging wall. The 30 to drive east of caunter, on Adgeworth lode, by two men, at 31, per fathom; the lode is producing stones of tin. The 20 to drive west of caunter, on Adgeworth lode, by two men, at 32, per fathom; the lode is producing stones of tin. The 20 to drive west of eanner, on Adgeworth lode, by two men, at 32, per fathom; the lode is his half is worth 121, per fathom, and as soon as the cutting of the plat is completed, the sinking will be pushed on with all possible speed, so as to re

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stribute; the holde is worth st, per fm. The 'to drive south of Seveal's both, by worth the 's morth, from Reitiger chast, it note to give good ventilation. The worth of the 's morth, from Reitiger chast, it note to give good ventilation. The war of the string of the 's we expect to the both new the state of the 's we expect to the both new the state of the 's we expect to the both new the state of the 's we expect to the both new the state of the 's we expect to the both new the state of the 's we expect to the both new the state of the 's we have a state of state of the 's we have a state of the 's we have

WHEAL RUSSELL.—John Bray, March 12: The lode to the east of cross-course in the Impham adit level in the upper part of the drivage is worth 3 tons of ore per fathom. In the bottom part of the level the lode is poer, not being out of the influence of the cross-course; the heave is about of t. to the south, WHEAL UNY.—S. Coade, M. Rogers, March 7: There is no change of import-ance to report on this week. We have sold to-day to Messrs Daubuz and Co. 11 tons 14 cwts. 3 ors. 29 lbs of black tin, at 511. 7s. 6d. per ton.

From Mr. Edward Cooke:—The market has been moderately active during the past week. The standard for copper ore having again risen considerably on Thursday last encourages the hope that a favourable reaction in the metal market has fairly set in. The decline in PRINCE of Walles shares was occasioned principally by the operations of a speculator who had accounts open with various parties in the market. When he was advised that the lode was cut through in the 65 fm. level, and found to be poor, he imprudently gave instructions to the various parties to sell the shares he had open, and consequently the price was forced down to 50s., 52s. The cutting the lode poor at the point of intersection does not indicate that the ore is cut out. By driving east or west it is by no means improbable a rich lode will be found. West Chivernon shares have risen about 31. The mine at no former period looked so well as at the present time for a continuance of prosperity. In this same district I am looking forward with confidence to see another great mine opened up in Normi Wheal Chivernon. A few weeks will determine the value of the lode in the 90 fathom level. From all the indications presented in the level above, it seems highly probable a rich lode will be met with.—New LOVELL: The lode in the 45 fm. level at this mine continues, I am informed, as rich as reported last week, worth about 50, per fathom, and the ground becoming easier for driving.

CARN BREA shares, although quoted 15 to 17½ in some of the daily papers, have not really been so low, but have been in good demand, at 17½ to 19, and are, in my opinion, very cheap shares. While upon the subject of quotations, I would observe that the public must be sadiy puzzled to understand those given by the Times in the daily Stock Exchange List. For instance, on Wednesday morning it was stated that Prince of Wales shares receded 10s., while, at the same time, they actually advanced 2s, 6d. On Thursday morning, in the same time, they actually advanced 2s, 6d. On Thursday morning, in

Now that it is seen that this company is certain to float, parties who had already applied are increasing their applications.

From Messrs, Ward and Jackman:—The rise and fall in Mining Shares form no exception to the general commercial risk. Public securities of every description owe their premial or discount position to "appearances," political or otherwise, and although thousands upon thousands are lost upon the variation of prices by one section and gained by the other, speculators still go on coaselessly playing the great game of chance, and yet we seldom hear the anathema poured forth against this system as is levelled against mining if in a single instance hopes and expectations are for a season delayed; and not only some the holders of shares on such occasions give vent to their animus, but, we are sorry to say, those who should be its "champions" do likewise. Great fluctuations have taken place in Pilixce of WALEs shares, which declined early in the week from 32, buyers to 21, 11s, sellers, being equal to 5760. The chief cause of this fall is not so much from the lode in the 65 being poor for the present, or from any falling off in other parts of the mine, as they never looked better, but to the system adopted by a few individuals of depressing the market by speculative sales, and using other means—and, indeed, every means in their power—to this end. This mode of operation cannot fall to have a most prejudicial effect on the mining interest generally, as it must disgust holders of stock to see their property knocked about at the caprice of parties who delight to depreciate the market value of everything when it suits their "peculary interest;" it behoves all who are really interested in the welfare of legitimate mining to render it all the "support" in their power, and at no time has it been needed so much as a present. A few weeks, however, we believe, will put a very different face upon some mines having real intrinsic worth, and which will yet defeat the operations of those who attempt to depreciate

From Mr. J. B. REYNOLDS:—Considerable fluctuations have taken place in one or two mines during the week, but the tendency of market mines has not, on the whole, been favourable. However, there are certain properties (the shares in which we never see quoted) in demand, and many, if not all, of them contain the elements of great success. Amongst such Imention Cologuitz AND CALINGTON UNITED, which has recently been inspected by a very celebrated and well-known authority, whose report is about to be circulated among the shareholders. It will be satisfactory in the meantime for parties interested to know that Capt. Pope, late of Wheal Basset, states that the Colquite lode has very much improved in appearance, and he concludes by predicting a prosperous future. Such a testimony from such a man must inspire great confidence, and a considerable rise in the price of the shares is not unlikely. Why should not this mine, considering all things, be selling at 10,000, before long? WHEAL KITTY (St. Agnes), which I have been strongly recommending privately to my cilcuts of late, has advanced in market value, and the shares are very difficult to get at nominal quotations. I think, with a rise in tin, that Wheal Kitty (Lelant), as well as West Wheal Kitty, will have a good rise. At Ross AND CHIVEKTON UNITED a very fine appearance. This mine will tell its own tale, and needs no eulogy from me, but my friends had better be on the alert. West St. IVES shares are in request, and have changed hands. It is likely that the upward tendency will continue. Westminster is very well spoken of, and shares are in favour. Minerals a splendid property, as I have before stated, and the shares are a good purlease. I advise my friends strongly to buy MARS-Y-SAPN stock. Don Pedro North delarche for the last week

to ship shares - Sarn steel. For the Mining Market for the last week or two has been quiet, but still there is encouragement in its tone for the future. The rising standard for copper, and the prespect of higher rates for tin, must have an effect, and that permanently, upon the mining market. We may not have any great change until after Easter, but that the old good times will come back again no one can doubt. Clifford shares have advanced to 6, 6%. Clifford shares have advanced to 6%, 6%, in expectation of cutting the lode in the 75. West Chiverton, 63 to 65. East Chiverton shares are enquired for, and well worth buying at the present low quotations. The indications are such as to leave no doubt that it will equal its rich neighbours, being on the same lodes. Cook's Kitchen, Tinggot, Stron, West Stron, and Great Vor in good demand. East Carn Breat in demand for Cornish orders, consequent upon improvements and the rising standard. Pathog of West Shares have shown the greatest fluctuation, they lately rose to 7%, anticipating a productive lode in the 65 fm. level, but it is driven through and poor, therefore shares fell to 61s. sellers, though since a little better. In the 55 fm. level east they have yet about 2 fathoms to drive in what may be expected to be a good lode, and in the 55 fathom level west about 3 fathoms to reach the western cross-course. CHONTALES shares have railled to 1 dis. The capital is now all called up, and the future mails may cause much anxiety or excitement, as the advices will decide the question of raising fresh capital, or otherwise. The shares are, probably, more speculative now than they have yet been.

SOUTH FRANCES AND WEST BASSET.—In the course of the business at the South Frances meeting, Mr. R. R. Broad, in reply to enquires, said he had nothing new to communicate relative to the lawsuit. Everything was left in the hands of their solleltors, Messrs. Smith, Rob From Mr. JAMES HUME:-The Mining Market for the last week

vour of South Frances.—West Briton.

AMMONIA AN AGENT OF MOTION.—Visitors to the Great Exhibition may recollect having seen a locomobile engine, set in motion by the application of ammonia, which was exhibited by M. Fort, a naval engineer. This engine attracted the Emperor's attention as well as that of the public, the saving resulting from the system being enormous. It appeared from the experiments made that a common 15 horse powersteam-engine working four hours consumed 247 kilogrammes of fuel, while the ammonia-engine working four hours and 18 minutes did not consume more than 107 kilogrammes. The saving was, there-247 kilogrammes of fuel, while the ammonia-engine working four hours and 18 minutes did not consume more than 107 kilogrammes. The saving was, therefore, about 50 per cent. The new apparatus has, moreover, the advantage of being easily applicable to the old boiler. The chemical theory on which M. Fort's system rests is this:—"The latent heat of the dissolution of ammonia in water is the algebraical sum of the latent heat of liquifaction of that gas, and of its heat of combination with water." The new engine, however, does not employ liquified ammonia and agas, but a dissolution of that gas in water, and commonly known as liquid ammonia. This solution only absorb 126 units of heat in its vaporleation, while that of water absorbs 606 of these units. Moreover, common liquid ammonia boils at 50° centigrade, and affords a pressure of six atmospheres at 111°, while steam requires a heat of 166° in order to produce the same pressure. Nevertheless, an objection to this new system had to be removed. Ammonia will attack copper and brass with great avidity; and as many parts of a steam-engine consist of brass, their speedy deterioration might be looked forward to. Fortunately, however, ammonia, the enemy of copper, is the friend of iron; that is, iron indefinitely in contact with it will be preserved from rust instead of suffering from it, and all the parts of the steam-engine now made of brass may henceforth be made of iron. The escape of ammonia from the engine is not to be dreaded, because the fatty substances with which engines are greased being saponified by contact with that gas, will only make them more air-tight.—Galignani.

HOLLOWAY'S OINTMENT AND PILLS-REDEMPTION FROM DISEASE. HOLLOWAY'S OINTMENT AND PILLS—REDEMPTION FROM DISEASE,—The hidden cause, the unsuspected source of many a wasting sickness and failing strength, has been developed by these admirable pills, and the application of the ointment to the malady thus discovered has rescued many valuable lives from a continued torture and premature end. Piles in all the many forms under which they afflict mankind, fistulas, strictures, inflammations, ulcerations, internal, external, recent, or chronic, are thus safely and speedly brought to a state of ease, and thence conducted to a lasting perfect cure. Both ointment and pills are innocent in composition; both are gentle in operation, and assist each other ever helping, never harming nature's acknowledged laws.

## Projected New Companies.

Company.	Capital.	Shares. Each.
United Club and Hotel		3,000£ 5 5,000 20
Sheffield Wagon Stafford Colliery	20.000	10,000 2
Land and Building		4,000 5

Stafford Colliery 20,000 10,000 2

Land and Building 20,000 10,000 3

SHEFFIELD WAGON COMPANY, 100,000 1, in 5000 shares of 20%. each, with power to increase.—The objects for which the company is established are the purchasing, or otherwise acquiring, of wagons to be used and employed on railways and tramways. The letting, leasing, selling, and supplying of such wagons to railway companies, eoal proprietors, and other persons. The repairing and maintaining of such wagons, and the doing of all other things necessary, or apparently desirable, for carrying on the business of wagon proprietors; and the providing of all accessory services connected with, or in furtherance of, the general undertaking. The purchasing, or otherwise acquiring, the business, property, or rights of, and amalgamating and making arrangements with, any companies, corporations, or persons carrying on business of a similar nature. The doing of all such other things as an incidental or conductive to the attainment of the above objects. The Memorandum was signed by—R. W. BROCCO, Bank, Sheffield, slate merchant, 109; G. Padblery, Gill-street, Sheffield, borough accountant, 20; JAMES ALLAN, Britannia Metal Manuface, Sheffield, auctioneer, 25; WM. CLAYTON, 41, Wicker, Sheffield, chemist and crugglats, 50; WM. BOOTH, 50; Church-street, Sheffield, wholesale grocer, 30; CHAS. SHANNAN, Woslenholm-road, Sheffield, cutler, 10. The number of directors not to be more than ten, nor less than six, to be elected on the first general meeting; until such election the subscribers of the Memorandum of Association shall be the directors. The qualification of a director shall be the childing of not less than 25 shares in his own right. The remuneration of the directors shall be detectored in the tother on the tother pany." The bankers of the company shall be carried on by, or under the management of, the directors, but subject to the control of general meeting at the office, Prideaux-chambers, Chango-Alley, in Sheffield.

STAFFORD COLLIERY COMPANY, 20,000%, in 10,0

management of, the directors, but subject to the control of general meetings at the office, Prideaux-chambers, Change-Alicy, in Sheffield,

STAFFORD COLLIERY COMPANY, 20,000., in 10,000 shares of 10% each, with power to increase.—The objects for which the company is extablished are the purchasing, leasing, and working the Stafford Colliery, near Loughor, in the county of Glamorgan, and other mines of coal, the tron, copper, ironstone, firely, and other metals and minerals, and the sale of such minerals and minerals for profit, and also the crushing and dressing of such metals, and also for making coke, and the doing of all such other things as are incidental or conductive to the attainment of the above objects. CHARLES PERCY, solicitor, 73, 181p-street, Kentish-towy Middlesex, 5; WILLIAM HARRAL JOHNSON, gentleman, 21, durney-road, Leyt-nstone-road, Stratford, 8; A. J. RODDINGTON, accountant, 70, Cheapside, City, 5; RICHABD GROBE PENSON, 3; Miltington-road, Asylum-road, Peckham, 5; ALFHED RESTELL, surveyor, 1. Argyle-street, Euston-road, W.C., 5. The number of directors shall not exceed five, the names of the first directors shall be determined by a majority of the subscribers to the Memorandum of Association, or a majority of them. Until directors to a papointed the subscribers of the Memorandum of Association shall for all the purposes of this Act be deemed to be directors. Every director to be hereafter appointed must hold 100 shares at least in the capital of the company. The directors to be appointed shall be entitled to receive, by way of remuneration, the annual sum of 400, and an additional 100, for each additional dividend of 5 per cent. paid in any one year, beyond an original dividend of that amount, and such remuneration shall be divided among the directors as they themselves shall determine. The directors shall be at liberty to commence and proceed with the business of the company as soon as they shall think fit, notwithstanding that the whole of the share capital of the company may not have been su

"JOINT-STOCK COMPANIES' DIRECTORY."—The fourth annual edition—that for 1868—of the extremely valuable Directory bearing this title has just been issued, by Messrs, CHARLES BARKER and Sons, the advertising agents, of Birchin-lane, carefully revised and corrected throughout. Although the crisis of May, 1866, had the effect of stopthroughout. Although the crisis of May, 1866, had the effect of stopping the extension of joint-stock enterprise, there can be no question that the many advantages of association in the carrying out of great public and industrial undertakings is fully recognised and appreciated. The information given with regard to the various foreign loan transactions has been brought down to the date of publication, and the value of the present edition is much enhanced by the insertion of an ably written review of the Companies Act, 1867, and of the latest Stock Exchange Regulations with respect to the appointment of settling days, both of which are of great general importance. The Directory will prove a most useful guide to all concerned, either in the promotion or management of joint-stock companies.

New Quebrada Company.—As will be seen by the details of the meeting (which appear in another column), the shareholders unanimously decided that the nature of the charges brought against the directors was too trifling in character to affect either the personal honour of the board or the position of the company, and the meeting having full confidence in the board of directors, as at present constituted, considered it inexpedient to appoint a committee of investigation. As soon as this resolution was passed, the Chairman (Mr. Osborne Stock, M.-P.) proposed, on behalf of the board, the appointment of a committee of conference, which received the cordial assent of the meeting. It is to be hoped that, since such conclusive testimony has been adduced in support of the present executive, all interested will henceforth co-operate towards ensuring its success.

GOLD MINING IN ITALY.—The Pestarena Company have received 88 ozs. of gold from the mines. The report of the agents will be 788 ozs. of gold from the mines, found in another column.

found in another column.

New Great Consols.—The large 80-inch pumping engine was started on Tuesday, in the presence of several of the principal shareholders in the company. The starting was eminently successful, the engine working admirably. The directors and shareholders afterwards direct together at Webb's Hotel, Liskeard. Mr. H. L. Phillips (the managing director), in proposing "Success to the New Engine," congratulated the adventurers upon the acquisition of an engine which would enable them to develope the property effectually, and the result of doing so he hoped, as, indeed, he believed, would be the possession of a permanently valuable property. He congratulated Mesers. Loam and Son, the engineers, upon the way in which the engine had gone to work, and he trusted that Capt. Pryor's anticipations of success would be realised. A better piece of ground he did not believe could be found in the county; and as a proof of the confidence he and his friends felt in the undertaking, he might mention that those in the room represented nearly 12,000 shares. The lode they were going to work upon had aiready returned many thousands of tons of ore, and they knew that they could sell 500 tons bi-monthly as soon as the milen was drained; and, should the slighest improvement arise in the quality of the ore, there could be no doubt whatever that New Great Consols would take a leading position in the county.

SAFETY APPARATUS FOR ENTERING FOUL AIR.—Some four years since reference was made in the *Mining Journal* to an improved apparatus, invented by Mr. GALIBERT, of Paris, and intended for use in places wherein the existence of foul air or poisonous gases would render it dangerous to enter, and since that time the invention has been very extensively adopted both in Paris and in other parts of France. Since the first introduction of the invention Mr. Galibert been very extensively adopted both in Paris and in other parts of France. Since the first introduction of the invention, Mr. Galibert has discovered that by substituting a stout kind of Mackintosh cloth for the goat skin in the construction of the air reservoir greater durability and efficiency are secured, at a smaller cost, and on Thursday a series of interesting experiments were made under the direction of Mr. T. Brown, C.E., in London, for the purpose of showing the great value of the invention in facilitating the rescue of persons and property from burning houses. For the information of those who did not avail themselves of the opportunity of examining and testing the apparatus when first brought forward, it may be stated it consists of an air reservoir, with two tubes attached, the one for the exhaled air extending just within the top of the bag, the other for the air to be inhaled to near the bottom. The with two tubes attached, the one for the exhaled air extending just within the top of the bag, the other for the air to be inhaled to near the bottom. The outer ends of the tubes are connected with a single mouthpiece, and the person using it secures all the advantages of valves (without the danger which might arise from valves being used and getting out of order), by simply placing his tongue alternately in one or other of the ordines therein. Goggles are employed to protect the eyes from irritation, and the nostrils are closed by a small spring elip. The bags used on Thursday were of the capacity of about 20 gallons, and the efficiency of the arrangement may be fairly judged of from the circumstance of a large number of the visitors, many of whom had never before entered foul gases, or seen the apparatus, having used it without inconvenience to enter a close room, purposely filled with a very foul and poisonous smoke, and remained therein for from 10 to 20 minutes. Mr. Galibert's apparatus has been adopted in France by the Ministry of Marine, the Paris Fire Brigade, and by numerous other public bodies and private firms; and as it is alike applicable to receuing persons and property from fires, and from mine-workings filled with choke-damp, or other deleterious gases, its extensive adoption in this country also, as soon as its merits are made more generally known, may be confidently anticipated.

SHAREHOLDER'S NON-LIABILITY AS CONTRIBUTORY. SHAREHOLDER'S NON-LIABILITY AS CONTRIBUTORY.—Gunn's case in rethe Universal Banking Corporation (Limited), was where the party had applied for 10 shares in the company, and sent with his application the required deposit money. A receipt for this was forwarded to him, but he never received notice of any allotment, nor was he ever called upon to pay the amount required to be paid upon allotment. But the company allotted to him the shares for which he had applied, and entered his name in respect of them on the register of shareholders. Five months afterwards he wrote to enquire when he should hear of an allotment, and was answered that the matter should be enquired into Nothing passed during the next two months, when a winding-up order was made It was held by Viee-Chancellor Stuart (whose decision was affirmed on appeal) that as there was nothing to show that the offer to take shares had been accepted by the company, there was no perfect contract between the parties, and that the name ought not to be inserted in the list of contributories. \*\*\* With this week's Journal a SUPPLEMENTAL SHEET is given, With this week's Journal a SUPPLEMENTAL SHEET is given, which contains—Royal School of Mines: Mr. Warington Smyth's Lectures (continued)—Mining in Canada, Annual Review—On the Waste of Mineral and Other Natural Products—The Progress of Mining, as a Science and Source of Commercial Wealth—Papers on Practical Mining—Swan River Coal and Brick Company Meeting—Mosquito Land Securities—Great Laxey Mining Company—Snaefell Mining Company—West Caradon Mining Company—Foreign Mine Reports, &c.

## The Mining Market; Pnices of Metals, Ores, &c.

METAL M	IARKET-London, March 13, 1868.
COPPER. £ s. d. £ s. d.  Best selected.p. ton 79 0 0 81 0 0 Tough cake and tile 76 0 0 - 78 0 0 Sheathing & sheets. 82 0 0 - 83 0 0 Bolts. 83 0 0 - 80 0 Bolts. 86 0 0 - 88 0 0 Old (Exchange). 68 0 0 - 88 0 0 Old (Exchange). 68 0 0 - 80 10 Wire. per lb. 0 1 0 - 0 1 0½ Tubes 0 0 11½ 1 0  BRASS. Per lb. Sheets per lb. 9d10d. Wire 3, 8½d.9½d. Tubes 1, 10½d1id. Yellow Metal Sheath.p. lb. 7¼d SPELTER. Per ton. Foreign on the spot. £20 5 0.20 7 6 , to arrive 20 5 0.20 7 6 ZING. In sheets \$25 10 0.26 0 0 TIN. English blocks \$0 0 81 0 0 81 00	IRON.
Do., bars (in barrels)	Ditto, in faggots16 0 0- — English, spring17 0 0-23 0 0 QUICKSILVER (p. bottle) 6 17 0- —
TIN-PLATES.* Per box.	LEAD. Per ton.
IC Charcoal, 1st qua. 1 7 0-110 0 IX Ditto, 1st quality 13 0-116 0 IX Ditto, 2d quality. 1 5 0-1 7 0 IX Ditto, 2d quality. 1 1 0-130 IX Ditto, 2d quality. 1 11 0-130 IX Ditto. 1 8 0-110 0 IX Ditto 1 8 0-110 0 Canada plates,p.ton.1310 0- Ditto, at works 12 10 0-  * At the works. 1s. 1	English Pig, com19 10 0

REMARKS .- The position of the Metal Market is still encouraging, REMARKS.—The position of the Metal Market is still encouraging, and it seems now to be gradually assuming an appearance of renewed vitality, business being much more active, and orders coming in with much greater regularity. It is gratifying to find that the anticipation we expressed of a revival in business in the spring has not been disappointed, and that thus early in the season it has been manifested that a much better state of things has commenced, and that we may fairly conclude that the improvement now begun will go on until former periods of prosperity in trade are again reached; and it is to be hoped that as we advance to this time trade will be established upon a firmer and more secure basis than it was before the late commercial crisis came upon us, and that the lessons learned during that period will not be lost, but will be the means of preventing the recurmercial crisis came upon us, and that the lessons learned during that period will not be lost, but will be the means of preventing the recurence of so great a calamity. The all-absorbing topic in the intelligence from America appears to be the impeachment of the President, which is now in course of proceedings. What may be the result of this step on the part of Congress is not very apparent, nor does it seem by any means certain that it will attain the object they have in view. It is much to be regretted that they have had recourse to this violent measure, which is so calculated to increase the already excited state of parties there, and to continue the unsettled condition of the country; and we fear may prove prejudicial to commerce also. The country; and we fear may prove prejudicial to commerce also. The advices received from India during the week are of a more favourable character, and from them there appears every reason to believe business generally has much improved, and to expect that it will still o forward in the same direction.

go forward in the same direction.

COPPER.—The market has continued its improved condition, and a very fair amount of business has been done both here and in Liverpool. Prices are also a little firmer. Chili bars have been sold at 73l. 10s. on the spot, and at 74l. for arrival, and business has been done in Burra at 83l., and Wallaroo at 81l.

IRON.—In Staffordshire, the makers who have an established consection, with the home purkets appreciation, with the home purkets appreciation, with the latest and the staffordshire.

IRON.—In Staffordshire, the makers who have an established connection with the home markets are receiving orders somewhat more freely, but the demand has not yet become general. The great reduction in the production of pig-iron operates to strengthen the price of that article, and should any advance take place in the prices of finished iron, the producers of the latter who have to buy pigs will be in a worse position than ever. In Welsh, although there is more confidence evinced in the future of the trade than for some months past, actual transactions cannot be said to have made much advance. Iron freights are already in the market for Russia, and there is every probability that the requirements of that country for the coming season will prove in excess of what they were last year. The American probability that the requirements of that country for the coming senson will prove in excess of what they were last year. The American purchases also are considerable. Bars are somewhat more enquired for. In Swedish iron the demand at present is only moderate. In Scotch pig-iron there has not been much business done during the week, but the tone of the market has been firm, and prices show an upward tendency. The last quotation from Glasgow was 52s.11d.

cash.

LEAD,—Business still continues active in this metal, and prices remain very firm; and it is by no means improbable that, should this state of things continue, an advance in prices will take place.

TIN.—The market for Straits has not made any advance during the week, and transactions have not been numerous, still prices are firm at 911, 10s. to 921, cash, at which sellers seem disposed to hold.

SPELTER has remained very quiet, and the amount of business transacted has been only trifling; prices, however, continue at 201, 5s. to 201, 7s. 6d. for parcels on the spot.

TIN-PLATES.—The improvement which has taken place is fully maintained, and makers are now very firm in their prices.

STEEL.—The demand is only very limited.

QUICKSILVER.—Sales are not very frequent, but no alteration has

QUICKSILVER.—Sales are not very frequent, but no alteration has

gess's, 201.; the 80, west of Batters's, on north lode, 151.; and the 70,

gess's, 201.; the 80, west of Batters's, on north lode, 151.; and the 70, east of Batters's, on new north lode, 151. per fathom.

Wheal Mary Ann, 20 to 21, ex div.. At the meeting the accounts showed a profit of 10571. 18s. 5d. on the quarter, and a dividend of 17s. 6d. per share (8961.) was declared, leaving 17021. 14s. in hand. In addition to this, two parcels of ore (not credited) were sold on Feb. 21—No. 1, 60 tons, at 221. 17s. 6d. per ton; and No. 2, 46 tons, at 141. 12s. per ton. East Lovell, 8½ to 9; Frontino and Bolivia, 13s. to 15s.; Great Laxey, 17 to 18. At the meeting a dividend of 10s. per share was declared. Grambler and St. Aubyn, 5 to 6. At the meeting a call of 11. per share was made. The accounts showed a balance against the adventurers of 6852. 15s. 5d., and a loss on two months of 3671. 3s. Great Retallack, 2½ to 3; Great South Tolgus, 17s. 6d. to 20s.; Great Wheal Vor, 18½ to 19½; Herodstoot, 37 to 39; Marke Valley, 6½ to 6½; North Chiverton, 4 to 4½; North Crofty, 2½ to 2½; North Downs, 21s. to 23s.; East Caradon, 3½ to 4½. The ends on Child's lode are worth 32l. per fm. Chiverton Moors have advanced to 6½, 7. The prospects of the mine are good, and in about three weeks the lode will be cut in the 75. At present the returns of lead about meet the costs, and if a good lode is cut in the 75 the mine will be in a position to yield profits.

North Treskerby, 26s. to 28s.; Providence Mines, 25 to 27; South Frances, 20 to 22; Tincroft, 13½ to 14½. West Caradon, 8 to 9. At the meeting a call of 1l. 10s, per share was made. West Frances, 25 to 35; West Seton, 190 to 200; Wheal Basset, 65 to 70; Wheal Chiverton, 2½ to 3; Wheal Grenville, 27s. to 29s.; Wheal Seton, 55 to 90; Wheal Uny, 30s. to 32s. North Roskear, 8½ to 9½. At the meeting the accounts showed a balance of 1045l. 3s. against the adventurers, and a call of 1l. 10s. per share was made. The report states that Pearce's shaft has been completed for the reception of pitwork to a depth of 230 fathoms. The engine is almost ready to work, but

will take about three weeks to have everything complete at surface and underground for starting the engine, and commencing to sink Pearce's shaft; when this is done, the agents state they will at once begin to send up copper ore, and have every reason to believe, from the value of the lode so far as they have been able to work on it hitherto, they will have copper ore in sufficient quantities to repay the shareholders for the outlay which has been made, and add a permanent source of prosperity to the concern.

The business in the Mining Marketon the Stock Exchange has been very limited, but, notwithstanding, prices have been fully maintained. The following are the principal quotations:—St. John del Rey, 17 to 18; Don Pedro, 2½ to 2½ prem.; Anglo-Brazilian, ¼ dis. to par; Anglo-Italian, par to ½ prem.; Pestarena, ¾ to ¾ dis.; the directors have just been advised of a remittance of 788 ozs. of gold, which, for the time of year, is considered satisfactory. Port Phillip, 1¾ to 1½; Rossa Grande, ½ dis. to par; Anglo-Argentine, ¼ to ½ prem.; English and Australian Copper, 11-16ths to 13-16ths, ex div., and enquired for, in consequence of the improved state of the copper market. Kadunda, ¼ to ¾; Scottish Australian, 1 to 1½; Yudanamutans, 1¾ to 1¾. Chontales shares have risen to 1,¼ dis. There has been a considerable amount of business transacted in British Mines, and at better prices, consequent chiefly on the improved appearance of the markets for copper, tin, and lead. Wheal Seton, Devon Great Consols, and South Caradon shares are all in demand, and are quoted at an advance. West Chiverton shares have risen to 64, 65. The bottom level, both east and west, has improved, and the reserves are being increased monthly to a large extent. The mine has been carefully examined by an independent authority, and the agents' reports are more than confirmed. monthly to a large extent. The mine has been carefully examined by an independent authority, and the agents' reports are more than confirmed. Chiverton, 38½: the nature of the ground eastward is very congenial for lead, and an important change is looked for. Chiverton Moor, 6½ to 6½: mine favourably reported on. Prince of Wales shares have been largely dealt in, and after falling from 518. to 528, subsequently rallied from 568. to 588. Great Vor, 18½ to 19; Great Laxey, 17½ to 17½; North Crofty, 2½ to 3. North Chiverton, 4 to 4½: the lode will be cut 10 fathoms below any former workings in the course of two or three weeks. North Wales mines are well supported. Glan Alun, 78. to 78. 3d. (68. paid); Maes-y-Safn, 28 to 29; Minera, 185 to 195. Westminster Mine has improved generally in the stopes during the week. At Ebury the lode in driving is worth upwards of 1 ton to the fathom.

IRISH MINE SHARE MARKET.—This important branch of our Stock Exchange (Dublin) has been very buoyant since our last report, when we had to record an improved demand for Connorree shares (1l. pd.), at 3s. 9d.; for those of the Mining Company of Ireland (7l. paid), at 18l. 10s., buyers; Wicklow Copper Mining Company (2l. 10s. paid), at 16l. 10s.; and Cape Copper Mining Company (7l. paid), at 16l. 10s.; and Cape Copper Mining Company (7l. paid), at 9l. 4s. dividend. Last week closed with a strong tendency to improvement, and this week gradually realised that expectation. Mining Company of Ireland shares went up to 19l. 10s., but sales for realisation brought them down a slight figure of 2s. 6d., they leaving off, however, in demand, at 19l. 7s. 6d. Wicklow Copper followed, for the same reason, the precedent set by the above, and receded to 16l. 7s. 6d., but left off in great request, at the trifling reduction of \( \frac{1}{2} th. Connorree shares, continue to command attention, and have been done between 4s. 3d. and 4s., with a firm appearance. Cape Copper shares have changed hands at an advance to 9l. 17s. 6d., and leave off strong.

The Connorree Mining Company held an adjourned special meeting of shareholders on Saturday last, for the purpose of receiving the report from the recently-appointed committee to investigate the accounts and financial condition of the concern, and consisting of Messrs. J. R. Greer (Chairman), Patrick Cogan, John Kennedy, Wm. Lewis, Edward Macready, and J. S. Mulvany. The meeting of the shareholders was attended unusually numerously, and presided over by Mr. Edward Fotterell. The committee's report discloses such extraordinary dereliction of duty and flagrant abuse of confidence on the part of some of the directors and officials of the company that we consider ourselves bound to give extensive extracts, in order to furnish a warning to other companies, the shareholders of which may be disposed to leave their affairs in the hands of those in whom they placed their trust in the outset o IRISH MINE SHARE MARKET .- This important branch of our Stock

further comments we abstain, in order to avoid all chance of being suspected of the slightest prejudice for or against any of the delinquents, the report of the committee speaking amply for itself, though the limits of our space compel us to omit many details, and to abreviate much strongly bearing on the conclusion the committee had

The report of the committee, read by Mr. Lewis to the meeting, contains, inter alia, the following:

STEEL.—The demand is only very limited.
QUICKSILVER.—Sales are not very frequent, but no alteration has courred in the price.

The MINING SHARE MARKET has not been particularly active this week, and has been subjected to violent fluctuations in some of the prominent shares. The settlement of the fortnightly account has also occupied the attention of dealers for a day or two, and affected business to some extent. The standard for copper ores, we are glad to say, has further advanced 27. 13s., and the rise looks more gradual and permanent than the jerky rises we had occasion to remark upon some weeks ago. The principal shares dealt in this week have been Prince of Wales, Chontales, West Chiverton, Chory, Wheal Mary Ann, Wheal Seton, Marke Valley, Great Vor, Carn Brea, Clifford Amalgamated, and a few others. Prince of Wales shares have fluctuated very much during the week. On Monday they opened 57s. to 59s.; and on Tuesday were knocked down, through, it is said, the closing of a very heavy account, to 51s.; on Wednesday they rose from 54s. to 56s.; on Thursday morning to 57s. 6d. buyers; on Friday opened from 56s. to 57s.; and left off at 56s, to 55s. 6d. buyers; on Friday opened from 56s. to 57s., and left off at 56s, to 55s. 6d. buyers; on Friday opened from 56s. to 56s. The agents where the part of the lode commenced upon is increasing in size (now 2 feet wide), and is letting down the water from the 55, and with every appearance of a course of ore. The various points in operation at the mine are valued at 2350, per fathom.

Carn Brea, 17½ to 20. Chontales Gold have been largely dealt in, and leave off 4 to 44. Clifford Amalgamated, 6 to 6; Drake Walls, so the course of ore. The various points in operation at the mine are valued at 2350, per fathom.

Carn Brea, 17½ to 20. Chontales Gold have been largely dealt in, and leave off 4 to 44. Clifford Amalgamated, 6 to 6; Drake Walls, and leave off 4 to 44. Clifford Amalgamated, 6 to 65; Drake Walls, to 65c. and the belonge to the payments as they had previous to the

the board of directors. The amounts required for the "pay" were given through the secretary, and the balances, in some instances, we traced under the exact date of the 10 U's of Mr. Mackie, who, in some of these instances, signed the cheques as one of the directors.

On Saturday, Feb. 29, we visited the mines, and there also a deplorable state of things presented itself. The machinery, which is of a good character, seems of things presented itself. The machinery, which is of a good character, seems to have suffered considerably by neglect. Everything seems to, have been ordered at the mine without any order or warrant from the directors, just as the officials thought fit. We find a most extravagant amount of coal consumed on the mine. As regards the mines, we obtained the assistance of Prof. Sullivan, who has reported upon the same. The only really well regulated, and apparently properly carried out, matters which came under our notice were the arrangements made for the comfort of the directors who visited your property, showing pretty plainly that the parties who were entrusted with our interests, and who so totally neglected them, were not unmindful of their own comforts, and who so totally neglected them, were not unmindful of their own comforts at our expense. The auditors seemed to have gone over the accounts without at our expense. The auditors seemed to have gone over the accounts without a complete and truthful audit, as pointed out by our Deed of Association. We a complete and truthful audit, as pointed out by our Deed of Association. We accomplete and truthful audit, as pointed out by our Deed of Association, which we have no means of ascertaining whether same be correct or not.

Your committee cannot close this part of the report without drawing the attention of the shareholders to some bill transactions between the board and Mr. How the weak of the company, we recommend a case, stating the entire matters connected of the company, we find soot to some bill transactions between the board and Mr. How t

The RHOS SLATE AND SLAB QUARRY COMPANY, with a capital of 50,000L, in shares of 5L each, has issued its prospectus, the object of the undertaking being to purchase and work a quarry of the same name on the slopes of Moel Siabod, near Pont-y-Cyfyng, in Carnarvonshire. The property comprises about 60 aeres of land, held for 21 years, at a royalty of one-tenth and renewable for 31 years longer. The vein, which has been thoroughly proved by two large tunnels, is upwards of 300, yards wide, and has easy cleavage, with good even surface. The natural position of the property is considered to be in all respects most favourable for a slate and slab quarry, being situated on the slope of a mountain, which rises gradually at an angle of about 21 degrees, giving ample space for depositing the debris without interfering with the free working of the slate vein. A large sum of money has been expended in opening out the quarry during the seven years of its existence, and the present company is to purchase it for 20,000L, of which nine-tenths is to be paid in fully paid-up shares. Mr. Hugh M'Kie, C.E., writes that the indications in the opening and on the surface are such as would lead him to suppose that the rock will improve the further they get into the vein, and he has no reason to think that the rock in other parts of the vein will be worse than where the opening has been made. Mr. O. E. Hughes says that, looking at the prospect of the quarry, its great size, its good quality, and the advantages in water power and throw for refuse, he cannot hesitate in stating that it will, with judicious management, become a great quarry, and a very profitable concern. With the large amount outlayed in proving this quarry, and the fine prospects before it, he would consider 20,000L a low price for it. The RHOS SLATE AND SLAB QUARRY COMPANY, with a capital of

would consider 20,000t. a low price for it.

At Redruth Ticketing, on Thursday, 1374 tons of ore were sold, realising 5053t. 8s. 0d. The particulars of the sale were:—Average standard, 123t. 2s.; average produce, 5\frac{1}{2}; average price per ton, 3t. 13s. 6d.; quantity of fine copper, 71 tons 15 cwts. The following are the particulars of the sales during the past month:—Date. Tons. Standard. Produce. Per ton. Per unit. Ore copper. Feb.13. 2175 ... £109 7 0 ... 6\frac{1}{2}\$ ... £4 3 6 ... 13s. 2d. ... £65 17 0 ... 20... 3745 ... 113 6 0 ... 6\frac{1}{2}\$ ... £4 3 6 ... 14 0\frac{1}{2}\$ ... 20 0 ... 20 0 ... 3745 ... 113 6 0 ... 6\frac{1}{2}\$ ... £4 3 6 ... 14 0\frac{1}{2}\$ ... 20 0 ... 20 0 ... 3745 ... 113 6 0 ... 4 9 6 ... 14 0\frac{1}{2}\$ ... 20 0 ... 3745 ... 111 10 0 ... 6\frac{1}{2}\$ ... 4 16 0 ... 14 1 ... 70 9 0 ... 12 ... 1374 ... 123 2 0 ... 5\frac{1}{2}\$ ... 3 13 6 ... 14 1 ... 70 9 0 ... 12 ... 1374 ... 123 2 0 ... 5\frac{1}{2}\$ ... 3 13 6 ... 14 1 ... 70 9 6 ... Compared with last week's sale, the advance has been in the standard 2t, 13s., and in the price per ton of ore about 3s. Compared with the corresponding sale of last month, the advance has been in the standard 5t., and in the price per ton of ore about 6s.

At East Pool Mine meeting, on Monday, the accounts for December and January showed a profit of 6701. 7s. 10d. A dividend of 6401. (51. per share) was made, and 1441. 1ss. 7d. carried to credit of next account. Captains W. S. Garby, J. Maynard, and A. James say—"The mine continues to look well at all points, and a higher standard for copper and a further advance of tin (which may be hoped for) would still further enhance our position."

At the Great Laxey Mining Company meeting, on Wednesday (Mr. 6. W. Dumbell in the chair), the reports and accounts were unanimously received and advanced.

At the Great Laxey aiming Company meeting, on wednesday (Mr. G. W. Dumbell in the chair), the reports and accounts were unanimously received and adopted. It was resolved that hereafter the company's meetings be held in April and October in order to avoid the equinoxial gales, which frequently prevent shareholders making the passage between England and the Isle of Man to attend the meetings. Complimentary votes were given to Mr. Wm. Tuxford and to the Chairman, directors, and managers. The details will be found in another column.

Tuxford and to the Chairman, directors, and managers. The details will be found in another column.

At the Snaefell Mine meeting, on Thursday (Mr. G. W. Dumbell in the chair), the account showed a credit balance of 18461. 6s. 3d. The reports and details of the meeting appear in another column.

At the Great North Laxey Mine meeting, yesterday (Mr. W. C. Bui'er in the chair), the report of the directors and the accounts were received and adopted. Details in another column.

At Wheal Mary Hutchings meeting, held at the account-house, on Feb. 26 (a large number of shareholders being present), the accounts showed a credit balance of 2461., all cost being paid to end of January. The report of the manager (Capt. Edwards) was considered highly satisfactory, and it was decided to credit 2 additional heads of stamps to the present water-wheel, also to prepare for a 50 or 60-feet wheel, for pumping and shiking the mine deeper.

At East Gunnislake and South Bedford Consols Mines meeting, held at Liverpool, on March 6 (Mr. Charles Holland in the chair), an estimated account of payments and receipts before the meeting to be held in May, showed an estimated debit balance of 6321, 15s. 6d. A call of 2s. 6d. per share was made. Capt. J. Bray says—'On reviewing our chances of success at the different points of operation, I cannot but feel pleased, as I think the future development of this property, as a whole, will lead to good results.'

At the West Caradon Mine general meeting, on Tuesday (Mr. W. Nicholson in the chair), the accounts showed a loss on the four months' working of 17361.78. 8d. A call of 39s. per share was made.

Nicholson in the chair), the accounts showed a loss on the four months' working of 17367. 7s. 8d. A call of 30s. per share was made. Details in another column

of 17321. 7s. 8d. A call of 30s. per share was made. Details in another column. At the Linares Lead Mining Company meeting, on Thursday, the directors declared a dividend of 3s. 4d. per share.

At the Fortuna Mining Company meeting, on Thursday, the directors declared a dividend of 2s. per share.

At the Alamillos Mining Company meeting, on Thursday, the directors declared a dividend at 1s. 6d. per share.

At the Gonness Mining Company fourth annual general meeting, held at the offices, Queen-street-place, on Wednesday (Mr. J. Orred in the chair), the accounts to July 31 last showed a profit on the 13 months comprised in them of 32191. 3s. 6d., and a balance of 70231.15s. to the credit of profit and loss account. The directors' report stated that much delay had taken place in the transport The directors' report stated that much delay had taken place in the transport of the ore by reason of the cholera which had existed on the island of Sardinia, and the season of wet and bolstcrous weather, which had been of unprecedented severity and length. A dividend of 10 per cent. was paid in July last, and so soon as the ores which have accumulated in the magazine's of the company can be realised a further distribution of profit will be made. The retiring directors and auditors were re-elected, and the proceedings closed with votes of thanks to the Chairman and to the directors for their attention to the company's affairs.

The United Mexican Mining Company have called a meeting for the 25th inst., to consider the propriety of acquiring some additional mines in Mexico, and for which a provisional agreement has been made by their agent, Mr. Furber.

On the Stock Exchange a considerable amount of business has On the Stock Exchange a considerable amount of business has been transacted in Mining Shares during the week. The following prices have been officially recorded in British Mining Shares:—Great Wheal Vor, 17½; West Chiverton, 64½; Wheal Mary Ann, 21¾; Great Laxey, 17¾, 17½.—In Colonial Mining Shares the prices were:—Scottish Australian, 1 1-16th, 1; Yudanamutana, 1 11-16ths, 1½, 113-16ths, 1½; Port Phillip, 1½, 1½; Cape Copper, 9½, 9½.—In Foreign Mining Shares the prices were:—St. John del Rey, 17, 16½, 16¼, 17¼, 17½, 18; Chontales, 3½, 3½, 3½, 37-16ths; Pestarena, 2½; United Mexican, 1½, 1½; Don Pedro, 2½, 2¼, 2¼, 1¼, 1 11-16ths prem.; Linares, 1½.

COAL MARKET.—The fresh arrivals this week number 119 ships The enquiry for house coals has ruled rather more active, and we quote an advance of 6d, on last week's prices. Hartley coals steady at the late quotations. Hetton Wallsend, 18s. 6d.; Original Hartle-pool Wallsend, 18s. 3d.: Eden Main, 15s. 9d.; Hetton Lyons Walls-end, 15s. 6d.; West Hartley, 15s. 6d.: 15 cargoes unsold; 30 ships at

The Bank of England return for the week ending on Wednesday The Bank of England return for the week ending on Wednesday evening showed in the ISSUE DEPARTMENT a decrease in the "notes issued" of 97,309.1, which is represented by a corresponding decrease in the coin and bullion on the other side of the account. In the Banking Department there is shown an increase in the "public deposits" of 148,1051., in the "other deposits" of 412,3611., and in the "rest" of 225 1. together, 562,7171., and a decrease in the "seven day and other bills" of 40,4071.—522,2501.; and deducting therefrom 60,5471. the increase in the "other securities" on the asset side of the account, there remains a total increase in the reserve of 461,7081.

LONDON GENERAL OMNIBUS COMPANY.—The traffic receipts for the week ending March 8 amounted to 99254, 188, 19d.

WANTED, by the HASWELL, SHOTTON, AND EASINGTON COAL AND COKE COMPANY (LIMITED), a RESIDENT VIEWER for HASWELL AND SHOTTON COLLIERIES, who will be required to dovote his whole time to the management.

Applications, in writing, to be made on or before the 20th of March in and, under cover, to Mr. C. U. Laws, Secretary of the company, No. 7, Colling woodstreet, Newcastle-upon-Tyne, who will furnish further information.

COAL SALESMAN.

WANTED, an ENERGETIC PERSON to undertake the SALE
MARKETS. Security will be required, as well as good references as to character and capability. The party would be required to devote the whole of his time to the sales of the coals of one colliery.

Applicants to direct to "P. A.," Post Office, Coventry.

TO STEAM BOILER MANUFACTURERS.

WANTED, a Person to MAKE a STEAM BOILER on a NEW PLAN, that would SAVE ONE-HALF the present CONSUMPTION OF FOR PRICEIL PROPERTY OF PARTICULARS, apply personally to Mr. JAMES HARBERT, No. 32, Waterfoostreet, Kidderminster.

WANTED, a FITTING SHOP and FOUNDRY, with MACHINERY, suitable for GENERAL ENGINEERING WORK, capable of employing about fifty men.
Apply, by letter, to Mr. J. GRAFTON JONES, M.E., Blaina, near Newport, Monmouthshire.

WANTED, a Young Man, from 16 to 20 years of age as ASSISTANT ACCOUNTANT in a MINING OFFICE.
Address, stating age and salary expected, to Mr. Moses Bawden, Tavistock.

WANTED, by the Advertiser, A GENTLEMAN to JOIN
HIM in OPENING a RICH TIN LODE. The lode has been proved
or 200 fms, in length, and immense quantities of rich tin have been raised only
a few feet from surface. It is the richest tin lode in the district.
All particulars can be had by applying to "A. B.," MINING JOURNALOUSE.
S. Floret. street. London. 26, Fleet-street, London.

WANTED, FOUR THOUSAND POUNDS, upon SECURITY of an EXCELLENT COLONIAL COLLERY.
Apply, with real name and address, to J. H. Howard, Esq., soliottor, 9, Quality-court, Chancery-lane.

WANTED, a CORNISH PUMPING ENGINE (second-hand) from 70 to 80 in, cylinder, in good working order.
Apply, stating price, maker's name, and how long at work, to Mr. MATTHEW
WINTER, Haydon Bridge, via Carlisle.

A GENT WANTED, to represent in London a FIRST-CLASS STEAM COAL HOUSE in Cardiff. Must be a Gentleman of good position, and well up in the coal trade. Will be expected to devote himself cuttiply to the business of the above house.—Apply, giving references and stating feetins, to "A. B. C.," Post-office, Cardiff.

A GENCY WANTED, by CAPT. JAMES METHERELL, who will INSPECT any MINE in the UNITED KINGDOM. No objection to going abroad.

Address, James Metherell, Lady Bertha Mine, Horrabridge, Plymouth.

A PARTNER WANTED, to join a Firm, who can, if required, speculate from £300 to £400 to SEARCH for GOLD in one of the most promising lodes in NORTH WALES, about three miles north of the Closest Gold Mine. Gold Mine. For particulars, apply to Mr. Samuel Fernell, Main Offeran Slate Quarry Dolgaridu, Festiniog, North Wales.

MONEY.—A Gentleman would ASSIST with MONEY in CARRYING OUT any thoroughly FEASIBLE SCHEME or INVESTMENT, with an equitable arrangement as to profits.

Address, with full particulars, in the strictest confidence, to "K.," part of Mr. Bailey, Stationer, Streatham-place, Brixton-hill, S.

A Gentleman experienced in the laying out of Mining Plant: the Construction, Erection, and Maintenance of heavy Pumping and Winding Engines; Machinery for Washing Coal and Dressing Mctalilierous Ores: practically acquainted with Locomotive, General Railway, Milwright, and Ironfoundry Work; 18 OFEN TO AN ENGAGEMENT as GENERAL of ASSISTANT MANAGER. Has held a similar position for many years. Address, "G. L.," care of John Horsley, Esq., Metal Broker, St. Ann's-Equare, Manchester.

TIN, SPELTER, &c.—A Gentleman, who has represented for many years a FIRST-CLASS COPPER HOUSE IN BIRMINGHAM, IS DESTROUS OF ADDING to his PRESENT (only) AGENCY OF COPPER, ONE of TIN, SPELTER, &c.
Address—"J.," care of Messrs. W. H. Smith and Son, Union-street, Birmingham.

BLAKE'S PATENT CRUSHER.—A SECONDHAND ONE WANTED.—Address, Mr. C. HAND, 5, Chapel-street, Liverpool.

DEVON GREAT CONSOLS.—WANTED TO PURCHASE, Address, "A.Z.," care of Mr. Armetage, auctioneer, 442, Florence-tomate, New Cross-road, Deptford.

TO CLOSE A TRUST.—ON SALE, about ONE HUNDRED AND FIFTY SHARES in the TRELOGAN LEAD MINE, situate flear HOLYWELL, FLINTSHIRE. The shares are fully paid up—namely, £40 per share—and must be sold.

Apply to Mr. LEDWARD, Crypt Chambers, Chester. TO CAPITALISTS.—A COLLIERY for DISPOSAL, of a PARTERSHIP. An EXCELLENT INVESTMENT.
For particulars, apply to "A. B.," care of R. J. Lecky, Esq., 190, Westmington Bridge-road, London, S.

FOR SALE,—A COLLIERY, recently sunk to the SILKSTONE COAL, in DERBYSHIRE, with all the MACHINERY, PLANT, &c. For particulars, apply to Mr. Coke, Mining Engineer, Chesterfield.

FOR SALE, a PORTABLE STEAM ENGINE of 25 Norr power. Winding gear to order to sult circumstances. SECOND HAN PORTABLE STEAM ENGINES, with new MORTAR MILLS, SAW TABLE c., on advantageous terms.

Apply to Messrs. Barrows and Carmichael, Engineers, Banbury, Oxon,

36-inch Cylinder Pumping Engine for Sale. FOR SALE, a 36 in cylinder PUMPING ENGINE, 9 ft. stroke, equal beam, working gear all bright; and 10 ton BOILER, complete, all Apply to Mr. TREWEEKE, Uny Lelant, Hayle, Cornwall.

TO MECHANICAL ENGINEERS, AND OTHERS

the Manager, BLAINA AND CWM CELYN IRONWORKS, near Now

TRAMPLATES.

TRAMPLATES.

TOR SALE, in lots, to suit purchasers, TWO HUNDRED TONS of SECONDHAND CAST-IRON TRAMPLATES, with GUIDE PLATES, CROSSINGS, SLEEPERS, and all requisites for a complete tramroad. Also about FIFTY TONS of NEW WROUGHT-IRON TRAMPLATES, with cast-iron SLEEPERS; and TWO HUNDRED PAIRS of NEW WHEELS (with or without axies) for COAL TRAMS.

Apply to the Manager, BLAINA AND CWM CELYN IRONWORKS, near port, Monmouth.

ANALYSES OF COAL, CANNEL, MINERAL OILS, and all OIL PRODUCING MINERALS are UNDERTAKEN by A. NORMAN TATE, F.A.S.L., &c.,

ANALYTICAL and CONSULTING CHEMIST, and CHEMICAL ENGINEER (Author of "Petroleum and Its Products," &c.),

MOLD, NORTH WALES.

Plans and estimates for oil and chemical works prepared, and their erection superintended.

erection superintended.

Assays of metals and their ores carefully conducted.

TENDERS are requested for SEVEN PARCELS OF SILVER ORE, as per account stated below, now ready for delivery at WHEAL SMILY SILVER MINE, near Callington, Cornwall:— 

Silver Ores for Sale.

SALE OF MINE.

TO BE SOLD, on the spot, BY AUCTION, on MONDAY, 20th APRIL next, at Ten A.M., the

REICHENBACH COPPER MINE.

Situate an hour and a half distant from the Bensheim Station of the Main and Neckar Railway, together with all the PLANT, BUILDINGS, and OTHER APPURTENANCES. APPURTENANCES.
Further particulars may be had at the works, on application, post free, to Herr Verwalter Merk, at Reichenbach.
The Zwingenberg Court, Grand Duchy of Hesse, Zwingenberg, 26th January, 1868.
BRUMHARD.

TO WHARFINGERS, MERCHANTS, AND OTHERS. VALUABLE PROPERTY IN SWANSEA FOR SALE.

VALUABLE PROPERTY IN SWANSEA FOR SALE.

TO BE SOLD, BY PRIVATE CONTRACT, all those VALUABLE COPPER ORE YARDS AND WHARFS, stuate at Swansea, in the county of Glamorganshire, formerly in the occupation of Messrs. Williams, Foster, and Co., and of the late Sir William Williams, Bart. These premises are well adapted for the carrying on an extensive business either in coal, timber, or any other kind of merchandise, suitable to the flourishing town of Swansea. There is a powerful crusher, and every other appendage necessary for the very extensive business which has been carried on there for a series of years as copper ore wharfs.

To treat for the same, apply to Mr. Francis Pryon, Claremont, Redruth, and for all further information to Messrs. SMITH, ROBERTS, and PAUL, soficitors, Truro.—Dated Claremont, Redruth, March 9th, 1868.

SLATE QUARRY TO BE SOLD OR LET.—A PROPRIETOR of a SLATE QUARRY is DESIROUS to SELL or LET it to a company, reserving a certain number of shares. It was first discovered twelve months ago, and about ninety thousand slates have been made since September last. It is situated on a hill side, with an incline to a railway and a turnpike road, the distance being about 400 yards. The stone is of good meta!, with good

cleavage.

The quarry has unusual facilities, having a deep pit for the rubbish outside, with natural floors, and joints in the rock—thus rendering the working of it comparatively inexpensive.

Further information may be obtained from W. P. BEECHAM, Esq., solicitor,

FOR SALE, BY PRIVATE CONTRACT, an EXTENSIVE and VALUABLE FREEHOLD MINERAL ESTATE, In GLAMORGAN-SHIRE, containing about 1500 acres. Land tax redeemed.

The surface comprises about 300 acres plantations, of a growth, suitable for milning purposes; 300 acres of farming land, and the remainder mountain land. Farm-buildings and cottages stud the estate, and extensive and valuable peatbeds underlie a considerable portion of the mountain district.

The minerals comprise all the Coal and Ironstone Measures proper to the South Wales Mineral Basin.

Address, "A. B.," care of Messrs. Lowe and OLIPHANT, Threadneedle-street, London, E.C.

LEAD ORES

	LE	AD OR	ES.		
Date. Mines.	Ton	18. A	mount		Purchasers.
March 3-Nether H	earth 10	£1	2 6 0		Walton & Co.
6-Minera .		1			Sims, Willyams, & Co.
- ditto .		1	1 18 6		Walker, Parker, & Co.
- ditto .	25	1	1 18 6		ditto
- ditto .	25	1	1 18 6		P. Glover.
- ditto .	102	1	1 18 6		Walker, Parker, & Co.
- ditto .	58	1	2 0 0		Sims, Willyams, & Co.
- ditto .	50	1	0 0		ditto
	100	1	18 6		Walker, Parker, & Co.
	n100	1			Cookson and Co.
-Great Lax	ey100	25			Sims, Willyams, & Co.
	thur 28	14			R. Michell and Son.
- ditto	11	1			ditto
		11	6 0		Sims, Willyams, & Co.
	on 75	15			Walker, Parker, & Co.
-Goginan					Runcorn Smelting Co.
		15			ditto
		15	6 6		Panther Lead Co.
12-Van		12	13 6		Adam Eyton.
		12	13 6		Walker, Parker, & Co.
	55				Adam Eyton.
- ditto			7 6		ditto
-Bryn Gwio	g 20	12			Peter Glover.
- ditto	20		11 6		Walker. Parker, & Co.
-Holywell I	revel 30	11			ditto
	sesmor 27		7 6		Adam Eyton.
Trelogan	25		13 6		Walker, Parker, & Co.
-Pennant	***************************************	11		****	ditto
-Parry's	***************************************			****	ditto
Dufngan		11			ditto
-North Hen	blas 6				Adam Eyton.
-Wagstaff			16 6 15 0		Walker, Parker, & Co.
13-Trewetha	161/				Adam Eyton.
10-110WCGB#	16/9	20	0 0	****	Sims, Willyams, & Co.
				_	

BLENDE.

ate.		Mines.		Tons	4.	Price	per	ton.	Purchasers.
rch	67	Minera		108		.£ 3	15	0	Bagillt Company.
	Nine.	ditto		62		. 3	12	6	H. Southern.
	-	ditto		52		. 3	5	6	Vivian and Sons.
						. 3	14	0	H. Southern.
	11-7	relogan		70		. 3	12	6	Bagillt Co.
	-	ditto	******	70		, 3	12	6	Kenrick and Son.

BLACK TIN.

Date. Mine. Ts. c. q. lbs. Price p. ton. Amount. Purchaser. March 7-Wheal Uny...11 14 3 26 ... £51 7 6 ... £ 605 11 4-Danbuz.

Mines.	Tons.		rice	Э.	Mines.	Tor	18.	P	rice
Prosper United			2 1	6	East Rosewarne	57		£3	5
	81 .		1 8	6	ditto				
	***** 78 .		4 1:	0	ditto				10
	***** 55 .		1 7	0	East Carn Brea	40		3	R
	48 .		2 14	0	ditto				10
	45 .		2 1	0	ditto				
	35 .		3 16	0	ditto				6
West Basset	59 .		1 17	6	ditto				ĭ
	54 .		3 15	0	Copper Hill	49		ĥ	ô
ditto	47 .		5 16	6	ditto				11
ditto	41 .		1 (	0	Falmouth & Sperr	es., 30		7	14
ditto	27 .	1	3 0	6	Wheal Buller	15		0	1
Wheal Margery	61 .		1 14	0	ditto	12		2	15
	60 .		1 14	0	Camborne Vean	16		3	10
ditto	48 .		1 12	6	West Briton	15		4	12
ditto	38 .	6	18	6	Wheal Curtis	8		9	4
East Rosewarne	61 .	:	15	6	St. Ives Wheal Alle	n. 9		17	15

| Total Probutes | Tota

Average standard......£123 2 0 | Average produce FOR SALE, on advantageous terms, the SURPLUS STOCK of SPARE CASTINGS, suitable for ROLLING MILLS, PIT-WINDING GEAR, and other heavy work, consisting of SPUR and BEVIL WHEELS of various diameters and pitches, and CAST-IRON SHAFTING, the whole being of the best material, having been intended for use at the undermentioned works at which they were cast.

COMPANIES BY WHOM THE ORES WERE PUR	CHASI	ED.	
Names. Tons.	Am	our	at.
Vivian and Sons	£ 970	7	5
Freeman and Co 73	286		6
Grenfell and Sons	450		9
Sims, Willyams, and Co	900		
Williams, Foster, and Co 329	784		6
Mason and Eikingtou 9014	298		10
Copper Miners' Company 10834	486		
Charles Lambout			8
Charles Lambert 470	1412	- 5	0
Sweetland, Tuttle, and Co 2	. 35	10	0
Total 1974	85050	0	_

Copper ores for sale at the Royal Hotel, Truro, on Thursday next—Mines ar parcels.—Devon Great Consols 1870—Marke Valley 440—Wheal Crelake 21.—Ka Caradon 190—Bedford United 162—Prince of Wales 143—Wheal Friendship 119 Wheal Emma 106—Gunnislake (Clitters) 93—Devon and Cornwall 80—East Rusell 70—West Maria and Fortescue 70—Wheal Russell 42—Collacombe 9—Fur don 6.—Total, 3611 tons.

Copper ores for sale at Tabb's Hotel, Redruth, on Thursday week—Mines a Parcels.—South Caradon 548—Clifford Amalgamated 464—North Treskerby —Glasgow Caradon 217—Wheal Rose 170—Phosnix Mines 164—Craddock Mc 126—West Caradon 99—Poldice Mines 90—Tywarnhaile 8.—Total, 2198 tons.

## Notices to Connespondents.

• Much inconvenience having arisen in consequence of several of the Numbers during the past year being out of print, we recommend that the Journal should be filed on receipt: it then forms an accumulating useful work of reference.

ME COST-BOOK SYSTEM.—Will you kindly give insertion to the following case in the Journal, in the hope that some one of your readers may be enabled to give a decided opinion upon it, and, if so, whether any similar case has been legally decided, when, and where?—VERITAS.

Case.—A sale of shares in a mine worked upon the Cost-book Principle took place some months ago. The vendor completed the transfer on a form bearing a notice on the margin that unless the shares were registered by the buyer within thirty days he (the vendor) would not be accountable for them. The buyer of the shares not having registered according to such notice, can the seller be hereafter called upon to supply the shares, or is he legally relieved from all future liability to deliver them?

from all future liability to deliver them?

SOUTH WALES.—Will some correspondent residing in this locality kindly furnish some infomation respecting the position and prospects of the Neath Merthyr Coiliery Company—the South Resolven and Cefn Mawr Coiliery Company, formed some three years since? The reports from the local agents were very sanguine as to satisfactory results, the daily output being estimated at 200 tons. Holding, with friends, a large interest, I shall feel thankful for some reliable particulars.—VIATOR.

some reliable particulars.—VIATOR.

LEAD SMELTING.—In the Journal of Feb. 29 there is a letter from Mr. G. Pengilly on Lead Smelting, and another this week from "A Mining Engineer" on the same subject. I shall be obliged to either of these gentlemen if they can communicate the particulars of Foster's processs, or favour me with the address of Mr. Foster, as I should like to meet with some practical person to erect such a furnace.—F. W. P.

erect such a furnace.—F. W. P.
PURCHASEOF MINE SHARES—"D. C." (Nottingham).—Shares are usually pur
chased "all calls paid" to date of purchase, and as no share with calls du
upon it can be transferred, it is probable that "D. C." will find that he is no
a shareholder, in consequence of the transfer neve having been registered.

## THE MINING JOURNAL

Bailway and Commercial Gazette.

LONDON, MARCH 14, 1868.

OUR TRADE.

OUR TRADE.

For some time past the expectancy of the commercial world has been similar to that of the Prophet's servant, who was bidden by his master, "Go up now, and look towards the sea." We are told that he went up and looked, and said, "There is nothing." His master, we are further informed, commanded him, "Go again seven times." Then we learn "It came to pass at the seventh time that he said, 'behold there ariseth a little cloud out of the sea like a man's hand." We have all been looking for this "little cloud" of betokening prosperity for at least 20 months past. Month after month we have ascended our commercial Carmel, and have looked out over the Mediterranean of the great business world; but, like the Seer's servant, have come down without being able to discover the much-coveted have come down without being able to discover the much-coveted indication of the return of those fructifying showers by which our various industrial fields are made to yield their wonted increase. At length, however, the anxiously longed for "little cloud" is believed to have been descried. True, it is not at present bigger that "a man's hand," but therein our confidence. For as the much-desiderated rain showers of the East usually begin with the appearance of a small cloud on the sea's herizon so we have the greater confidence. small cloud on the sea's horizon, so we have the greater confidence in the present indications, because their naturalness reminds us of s progress.

Nature's progress.

The trade correspondence of the Journal has furnished growing indications of this state of things; and the facts obtained from this source have been rendered the more encouraging by the information upon our trade and commerce which we obtain periodically from one of the departments of Government. The British export trade of 1867, though showing in the price of the goods sent out a diminution of 7,733,565*l.*, really shows an improvement to about that extent, by reason of the fact that we have had to pay much less in 1867 than in 1866 for the raw material which supplies our first national industry. It is true that the quantity of cotton imported in 1867 decreased from

in 1866 for the raw material which supplies our first national industry. It is true that the quantity of cotton imported in 1867 decreased from 12,295,000 to 11,272,000 cwts., but while the decrease in quantity was only about 8 per cent., the decrease in cost was about 32 per cent.

In other words, the raw cotton which we used in 1867 cost us about 18,000,0001, less than that we consumed in 1865. This difference shows that our trade in 1867 represented an increase upon 1866 of about 7,000,0001, rather than a decrease of 8,000,0001. In respect of those industries in which the readers of the Journal may be fairly assumed to be most interested, it is satisfactory to notice that the worth of the coal and culm sent away from our collieries in 1867 was nearly 300,0001, more than that exported in 1866. The exact figures are for 1866, 5,102,8051,; and for 1867, 5,400,3531. In iron there is also an increase. It is not much, still it is an increase, and an increase nearly as large as 1866 on 1865. as large as 1866 on 1865.

as large as 1866 on 1865.

The information to hand from the same governmental source, relating to this year, indicates a steady increase in the improvement. Coal and culm advanced, in January this year, more than 55,000\(lambda\), upon January of last year. The figures are—January, 1867, 301,014\(lambda\); and January, 1868, 356,121\(lambda\). The iron exports for this year are even more satisfactory. They show an increase of 171,143\(lambda\), in January this year upon January last year. The precise values are—1867, 628,150\(lambda\), 1868, 799,293\(lambda\). The year's trade in copper and brass also is encouraging. It shows an increase of 475,279\(lambda\), in the 12 months' trade. The values are—in 1866, 2,797,696\(lambda\), in 1867, 3,272,975\(lambda\). In January, this year, the increase was 50,000\(lambda\) upon the month's trade. The figures were—1866, 185,000\(lambda\); 1867, 235,000\(lambda\). There are drawbacks, however, in reference alike to articles, to

The figures were—1866, 185,000*l.*; 1867, 235,000*l.*There are drawbacks, however, in reference alike to articles, to markets, and to producing districts, which combine to make the actual state of things appear less satisfactory, universally, than these figures taken per se would imply. In respect of articles, steel may be cited. It fell off upon the year nearly 70,000*l.* The figures were, in 1866, 1,124,917*l.*; in 1867, 1,063,954*l.* The decrease in this metal, in January this year, was upwards of 49,000*l.* upon the corresponding month last year. The figures are in 1867, 92,105*l.*; 1863, 43,068*l.* In respect of markets, the United States must be quoted. It is true that that country took railroad iron worth 385,000*l.* more in 1867 than in 1866. but there was a heavy decrease in the eastings sent out. than in 1866, but there was a heavy decrease in the eastings sent out, and wrought-iron fell from 228,000l. to 133,000l., and the steel which she took was a great diminution upon the previous year. The same features continue in January this year. In that month the total increased value of the iron she received from us, as compared with that we sent in January, 1867, was 6653l. But that increase is due exclusively to the iron sent out for railroad purposes, of which she took 120,441l., against 66,151l. in January, 1867. It will thus be seen that the market in which the iron masters of the United Kingdom look to disness of a leave preparation of their contral in these deargements. to dispose of a large proportion of their output is, in those departments which have reference to the requirements on account of the general productive industries of the States, very perceptibly reducing its demand. For instance, the wrought sent out in January this year was not much more than a fourth of that sent to the United States in January last year; and the immense falling off in steel in the month shown above was due almost exclusively to the United States, to which country we was the almost exclusively to the United States, to when country we sent in January this year only 21,000%, worth, against 72,000% in the same month last year. We may add that there was a considerable decrease in cutlery and general hardware in January, and that this also is due chiefly to the lessened demand in the United States. Relative to producing districts, we cite South Staffordshire. Thence, as was observed last week, we receive the faintest possible indication of returning preserved.

returning prosperity.

It will thus be seen that, whilst it may be correctly stated that an improvement has begun, yet that we must rejoice with trembling. The ironmasters are accustomed to look to an improvement in the cotton trade as the "little cloud." It was first seen there, and the general bearing of the reports of our correspondents, and of the national statistics, show that it is spreading. It is to be lamented that any impediment to the return of prosperity should be obtruded by the men. Their present attitude in several quarters is most unsatisfactory, and in the face of certain political changes, accompanied with a better trade, compel us to recall the very old Eastern warning of—"If these things be done in the green tree, what will be done in the dry." We trust that the moulders of Scotland, the pud-The ironmasters are accustomed to look to an improvement in the cotton trade as the "little cloud." It was first seen there, and the

dlers of Shropshire, and those who are resisting the Earl of DUDLEY'S agent in the bringing about of certain very desirable chan gether with the tens of thousands of colliers who are out in and about St. Helen's, will see it to their interest to accept the terms by which their masters hope to encourage the re-appearance of that prosperity in which the operatives are so vastly interested, and of which it is believed the advent has dawned.

#### NORTHAMPTONSHIRE-ITS IRONSTONE AND ITS IRON.

The rapid progress which has been made during the last 12 or 14 years in the development of the vast deposits of ironstone to be found in nearly all parts of the county of Northampton, and which so far has not been known and appreciated, even by the trade, to the extent which they deserve, a brief notice from a personal visit made during the last few days in the districts which will be alluded to may be the means of giving some idea of the present condition and future pro-spects of the iron and ore trades in them. That more important branches spects of the iron and ore trades in them. That more important branches of industry are fast assuming proportions of a colossal character, so great, so far as the county named is concerned, as could scarcely have been anticipated not very long since by the greatest enthusiast, admits of no doubt. We believe it was about the year 1851 when Mr. BLACK-WELL, of Dudley, had his attention drawn to some specimens of iron-stone sent from Northamptonshire, he being then engaged in preparing a series of specimens for the Exhibition. The matter was at the same time taken up by Mr. W. BUTLIN, of Northampton, who may be said to be the author and founder of the iron trade in Northamptonshire, and who after sur nounting endless difficulties overcame them, and and who after surmounting endless difficulties overcame them, and at last had the satisfaction of turning out at a small furnace the first piece of iron made from native ore. Still the stone was not patronised, the "rhubarb" and "monkey dirt," as it was termed, patronised, the "rhubarb" and "monkey dirt," as it was termed, being considered of little value, notwithstanding the fact that the resources of South Staffordshire, which at one time was amongst the largest producers, had gradually fallen back from exhaustion, until it became only the fifth or sixth in importance, and was seeking for supplies from some other districts. Indeed, it is not very many years since the ironmasters of the county depended for their main supplies of ironstone on South Wales, Staffordshire, Shropshire, the Forest of Dean, the West Riding of Yorkshire, and Scotland. Matters, however, were greatly changed by the discovery of immense deposits of Dean, the West Riding of Yorkshire, and Scotland. Matters, however, were greatly changed by the discovery of immense deposits of Vorkshire, and which now stands as the largest iron-producing district in the kingdom. No greater proof of the extent of that valuable field can be given than in the fact that where little more than 25 years ago some four or five isolated houses were to be found, now lies the important town of Middlesborough, with a population of from 25,000 to 30,000 inhabitarits. Since then the next great field of ironstone discovered was that of Northamptonshire, which in the year 1860 produced 95,664 tons, which was increased in 1864 to 335,787 tons; and, as will be seen by the following table of the products of the principal iron-producing districts for 1866, has still increased:—
Cleveland district......Tons 2,800,060 [South Wales..........Tons 369,961]

There are several other districts which produce ironstone, from Wiltshire, which has credit, after Northumberland, &c., for 75,645 tons, down to Monmouthshire, with 60 tons only. It will thus be seen that Northamptonshire takes the seventh place on the list, suseen that Northamptonshire takes the seventh place on the list, su-perseding many of the old producing localities, and there is but little doubt that in the course of a very few years it will stand much higher, and even compete for the pride of place with Cumberland. It may be stated that in Northampton nearly the whole of the stone It may be stated that in Northampton nearly the whole of the stone is taken from just below the surface, the same as in a quarry, and that in nearly all parts of it the ore is discernible, whilst the county town itself is nearly, if not altogether built on it. At Duston, a short two miles from Northampton, Mr. Pell and others are getting the stone on the land belonging to Lady Palmerston, and the glebe in the occupancy of the Rev. P. Banton, in which there is plenty of material. Two or three miles further on, close to the Blisworth Station of the London and North-Western Railway, and at the adjoining parish of Gayton, there is the greatest activity to be seen, large quantities of ore being raised by Bevan and Co., Mr. Pell, and Mr. Weldon. In all parts of the district, indeed, a very heavy tonnage is obtained, and it is no unusual thing to see some 50 or 60 wagons most mornings leaving the Blisworth Station for Staffordshire and Wales. At one of the pits worked by Bevan and Co., which lies close to the canal, the ore is put in trucks on to a boat, and then taken to the railway. Throughout the whole of the districts just named there appears to be scarcely any limit to the quantity of irontaken to the railway. Throughout the whole of the districts just named there appears to be scarcely any limit to the quantity of ironstone which can be raised; and even in the vicinity of Towester, where no trials have as yet been made, there are strong indications of the presence of iron, in some instances the stones for mending the roads being strongly impregnated with it.

roads being strongly impregnated with it.

Leaving, however, those picturesque spots, and taking a northeasterly direction, a very few miles brings us to the Billing-road station, on the Peterborough line, near to which is Cogenhoe, an estate
belonging to Mr. WELDON, and which, containing ironstone, is about to be opened out. A few miles further on the vast fields at Wel-lingborough, running on by way of Finedon for a distance of about 16 miles on the Midland Railway, are reached. On each side of the 16 miles on the Midland Kaliway, are reached. On each side of the line are extensive deposits of ore, and which, in all probability will not be worked out for generations. The Glendon Company are working some of the stone raised, which is principally found on the estate of Mr. W. M. DOLBEN, whilst at the adjoining village of Addington, as well as at others, there is evidently plenty of stone, Mr. Colson, one of the oldest farmers in the district, having informed us that no inconsiderable quantities are brought up with the plough, whilst in inconsiderable quantities are brought up with the plough, whilst in sinking to a short depth for drainage or other purposes the same is found to be the case. Between the Thrapstone and Twywell stations, the extensive estate of General Arbuthnot is about to be fully developed, as it contains some very good stone, some of the finest qualities of which lie rather deep in comparison with others. On the adjoining properties of Sir G. ROBINSON and the Hon. Mr. STOPFORD there are also deposits of more or less extent, as there is on the estate of the new Chancellor of the Exchequer, the Right Hon. G. W. Hunt, in the same

neighbourhood, all of which will be worked. With regard to the quality of the iron made from Northampton-shire stone, we can state that it has been unduly underrated. This we can say from what came under our own observation whilst visit we can say from what came under our own observation whilst visiting the extensive works of the Messrs. BUTLIN, at Wellingborough, which are the largest in the county, and for various reasons the most important. Mr. W. BUTLIN, a thoroughly-practical man, and by profession an engineer, has devoted a great deal of his time to the most profitable mode of smelting, and the means of procuring the very best quality of iron. He has well studied the chemical conditions of his own and other inconstoner to reservin their earthy imditions of his own and other ironstones to ascertain their earthy impurities, so as to apportion their fluxes for the purpose of freeing the iron from them. Therefore, in his own machinery, and in the erecfrom from them. Therefore, in his own machinery, and in the erection of his furnaces, he has made considerable improvements, whilst in several other branches there are various means adopted for the economising of labour, which are worthy of special notice. Commencing with the ironstone used by Messrs. BUTLIN, we may say that the fields are quite close to the Midland and London and North-Western Railways, on to both of which there are several sidings. The stone varies in thickness up to 15 or 16 ft., and gives from 10,000 to 12,000 to a per are and in some instances considerably more. The to 12,000 tons per acre, and in some instances considerably more. The whole of the ore is worked from the surface, the same as in a quarry, and some of the fields were rewarkable for the richness of the stone, for one section to which our attention was drawn must have con tor one section to which our attention was drawn must be trained considerably more than 50 per cent. of iron. In another there would be about 15 per cent. of lime, so that not a great deal more

would be required for smelting.

The quantity of stone raised by the firm is by far the largest in the county, as in addition to the supplying of their own furnaces, three of which are at times in blast, nearly 2500 tons are being sent weekly county, as in addition to the supplying of their own furnaces, three of which are at times in blast, nearly 2500 tons are being sent weekly into Derbyshire and Yorkshire. For the purposes of exportation the means are in every way excellent, so that a truck of coal is unloaded very quickly, whilst only a couple of minutes are required to have it filled with ironstone and moved on towards the railway siding.

Perhaps one of the most interesting processes connected with the rerians one of the most increasing processes connected with the raising of the ironstone at Wellingborough is that as soon as it is got the land is made good again, and fit for agricultural purposes. In one tract of ground, which appeared in an admirable state of cultivation, we were informed that befere it was in its present condition it had yielded about 200,000 tons of ironstone, and yet that it had been disturbed for such a suppose one could for a such as the suppose of the sup

it had yielded about 200,000 tons of fromstone, and yet mach had been disturbed for such a purpose no one could for a moment have supposed. With regard to the smelting operations of Messrs. BUTLIN, it may be stated that, in addition to the two furnaces at East End, at the new works there is one furnace in blast, and another nearly ready. but the grounds are laid out for four, whilst large workshops and sheds are being constructed. Most of the machinery, as before stated, is of improved construction, and manufactured by Mr. W. BUTLIN. The furnace casings, instead of being rivetted, as is usual, are put to gether by bolts, so that the fastenings are more secure, and easier joined gether by bolts, so that the fastenings are more secure, and easier joined together and taken to pieces, effecting a saving in labour which more than pays the extra cost of the bolts. The boilers are 30 feet long, 6 feet in diameter, the cubes being 2 ft. 2 in. The blast-engine for one furnace is driven with 28 cwts. of slack per day. The great economy gained by the boilers is attributed to the setting, which is a wheel shaft, the flues of which are increased in size as they approach the shaft, with a stack three and a half times the length of the boiler. the shart, with a stack three and a half times the length of the boiler. The combustion is, therefore, perfect, without the loss of temperature in the shaft, which is from 380° to 400° Fahr., and there is little or no smoke made. The engines, which are of 60-horse power, were made by Mr. BUTLIN, as was all the machinery in use, with the exception of a small locomotive engine, made by HUDSWELL CLARKE, of Leeds.

With regard to the production of a really first close ison. W.

CLARKE, of Leeds.

With regard to the production of a really first-class iron, Mr. W.

BUTLIN, who has well studied the matter, and arrived at certain conclusions, which are well worthy of consideration, says the results of his experiments are that the Northamptonshire ironstone has many advantages over several others. It is got on the surface, consequently can be obtained cheap, and is comparatively free from phosphorus, sulphur, or any other injurious ingredient, and only requires skilful treatment in the furnace to give a good yield. The ore is exceedingly friable—so much so, that it could be melted in an ordinary iron ladle. From various causes however, it is considered that the ore ladle. From various causes, however, it is considered that the ore had not been properly treated by the foreign ironmasters who had used it, so that the same results were not obtained when the ore was used in fusion with others, as at the local works. This will be borneout by the following statement of what was done at one of the fur-

aces	at	Well	ingb	oroug	h fo	r the	se	ven	day	s p	rio	· to	our	visit	-
	Coal	in fu	rnac										. 271	t. 0c.	20.
	Coal	in st	ove a	nd boi	lers (	slack	)						. 78	10	0
	Coke		*****										. 25	13	0
	Iron	stone			*****								. 513	0	0
	Lim	eston	0										. 181	10	0
	Iron	mad	0										. 194	10	0
Top	per to	on of	iron	made-	-			_							
,	Coal	****		*****	To	ns 1.2	9	Iron	iston	6 .			T	ons 2	63
,	Coke	Act	nal n	ercent	oro fr	0·)	3	Lim	estor	10	• • • •	• • • •	*****	0:	90

This was lower than usual, the stone by no means being the best that could be obtained, but rather the reverse; still a yield equal to something like 38 per cent under the circumstances—the ore being used in its raw state—shows that the ore is far superior to what is generally supposed. The stone is friable and tender, and so exceedingly fusible that makers at a distance calcine it to mix with their own ore which requires a numb higher temperature. own ore, which requires a much higher temperature. It is, therefore, obvious that the Northamptonshire ore being very fusible, and not being mixed in proper proportions when used with the foreign mabeing mixed in proper proportions when used with the foreign material, the results are not so satisfactory as they would otherwise be. Hence the ore is not appreciated to that extent it would be, owing to the want of proper manipulation and the adjusting of the quantities, To obtain a really first-class iron, Mr. BUTLIN recommends a mixture To obtain a really first-class iron, Mr. BUTLIN recommends a mixture of 50 per cent. of Northamptonshire, 25 per cent. of Lincolnshire, and 25 per cent. of a mild clay ore, with a soft blast, (say) 2 lbs. pressure to the square inch, and the temperature about from 450 to 500. By such a mixture the temperature would be greatly lowered, and a considerable saving in fuel effected, whilst an improved quality of iron would be obtained. It is apparent that, when the body of the charge would be obtained. It is apparent that, when the body of the charge contains a large proportion of refractory ore, (say) three-fourths, the temperature of the furnace must be high, however well it is fluxed; hence, under such circumstances, it is far from advisable to use such a large proportion of foreign ore. On the other hand, if the proportions are as previously stated, the body of the charge being Northamptonshire ore, which is easily fused, and when the clay and calcareous ores are used as fluxes, the temperature of the whole is reduced, thus making the smelting operations more profitable.

In Staffordshire the pig-iron of Wellingborough has been admitted to be first-class for foundry purposes, as well as for sheets and plates, and, according to Mr. HIPKINS, of the Victoria Works, West Bromwich, is one of the most useful irons in the three kingdoms. Of it we may also say that Mr. BUTLIN is sanguine that it might advantage-ously be introduced into the manufacture of heavy armour-plates.

may also say that Mr. BUTLIN is sanguine that it might advantage-ously be introduced into the manufacture of heavy armour-plates. By selecting the ores which are most silicious, and smelting them pro-perly, a class of pig-iron suitable for the outer face or skin of the plate would be obtained; and then by having ore as free as possible from silex, a soft and suitable pig would be produced. Thus, with a hard outside, there would be an inside sufficiently soft to act as a cushion in receiving a blow from a heavy missile. In these days, when every-thing relating to armour-plates is deemed of importance, the sugges-tion named may not be considered out of place, or unworthy of con-sideration, in noticing an iron-making district. sideration, in noticing an iron-making district.

In concluding the notes of a visit to the iron districts of Northamp-tonshire, it is worthy of observation that several years before the dis-covery of ironstone there was a strong feeling that coal existed in the neighbourhood of Northampton, and was sunk for there to a depth of more than 300 yards. It is needless to say it was not found, but why the ironstone should have escaped the observation of those who were seeking for the coal is not very apparent, unless, indeed, that it must have been entirely unknown but for its use for road-mending purposes.

## THE COAL FIELDS OF YORKSHIRE.

Mr. R. CARTER, C.E., of the Cliffe, near Barnsley, and of Harrogate, delivered a highly interesting lecture to the members of the Halifax Literary and Philosophical Society on the Geology of Yorkshire, more especially as regarded the coal mensures and the carboniferous system generally. The lecture, which was illustrated by numerous diagrams and maps, was of a thoroughly practical character, and we subjoin the principal features as of particular interest to the readers of the Mining Journal.

After a few preliminary remarks, Mr. CARTER said in attempting

subjoin the principal features as of particular interest to the readers of the Mining Journal.

After a few preliminary remarks, Mr. Carter said in attempting to illustrate the coal fields of Yorkshire it would be requisite to extend his observations beyond the area itself, and consider the coalbearing strata in connection with the other rocks which combine with them to make up the great carboniferous system, which system obtained in Yorkshire a finer development, perhaps, than can be met with in any known part of the globe. By the carboniferous system he meant the entire group of rocks which has the mountain limestone as its base, the overlying rocks and shale of the millstone grit as its intermediate member, and the great mass of coal strata as the upper or later deposits of the series. Now, whilst the lower portion of the great carboniferous system had been so fully treated by Prof. PHILLIPS, ample materials existed for the evening's discourse in the upper strata of that system, comprising, as they do, the entire deposits of the great Yorkshire coal field. To this selection some little originality will be attached, for, notwithstanding its vast commercial importance, few districts had so nearly escaped geological illustration as that to which he proposed to direct attention. If, then, tration as that to which he proposed to direct attention. If, then, he stated, we take a vertical section of the strata which go to form the aggregate mass of the earth's crust, we find that in the varied structure of our own country nearly every important member of that vast group has its representative, and this, too, under circum-stances which admit of their individual and easy examination and study in one part of the country or another. A section of the strata exhibited upon a line drawn across the country from Sedberg, in

Silurian and Cambrian formations, to the latest deposits of the Tertiary, and almost historic times. The exception which this magnificent spectacle exposed became the object of research for the evening, and comprehended the entire mass of coal-bearing strata, of which some slight conception might be formed when it was remarked that its aggregate thickness could not be stated at much less than 3000 ft. Apart from its importance as the great magazine of our mineral store, in iron and coal more particularly, the omission of such a mass of strata is, nevertheless, remarkable, and its "whereabouts" or annihilation would form the subject of enquiry and inor annihilation would form the subject of enquiry and in-

abouts "or annihilation would form the subject of enquiry and investigation at a future stage.

The geological structure of Yorkshire, and more immediately of the West Riding, should be regarded as having for its sub-base and primary foundation the west stratum of limestone, which marks in this district the commencement of the carboniferous era, and commonly known as the "Great Scar," or mountain limestone, the pesence of which, and its associated strata of calcareous shale and romight be traced in one continuous chain, or mountain barrier, along the entire western boundary of the country, from Westmoreland in the north, to Derbyshire in the south. The primary deposition in the grand laboratory of Nature of this vast limestone formation, succeeded immediately to one of those periods of disruption and upheaval by which the crust of the earth has at several different times been broken up and redistributed. It was, therefore, said to be unconformable to the underlying slate and other rocks which rear their ancient peaks, and give grandeur to the neighbouring scenery of Cumancient peaks, and give grandeur to the neighbouring scenery of Cum-berland and Westmoreland. The limestone was, nevertheless, con-formable to, as it formed the base of that magnificent system of carormable to, as it formed the base of that magnificent system of carboniferous deposits, while comprising the limestone and millstone grit, had its final termination in the coal-bearing group already referred to. Immediately succeeding the completed deposit of the coal formation, we have the next great epoch of upheaval and dislocation, which in its turn was followed by deposits of the magnesian limestone and New Red Sandstone; the Oolite, and other formation, to the base of the chalk. Then, again, an epoch of disturbance and upheaval occurred, followed by the subsequent deposition of the very interesting series of rocks known as the chalk rormation. In this order of successive deposition was comprehended a mass of strata, the aggregate thickness of which might be assumed at something like 10,000 feet. In this calculation, however, he had taken the coalbearing strata at 3000 feet only, but this formation, like others, was represented by a much greater thickness in some portions of the country then can be accorded to them in Yorkshire. In South Wales, for instance, the coal formation alone was estimated at over 10,000 ft. of thickness. In the neighbouring county of Lancashire the kindred strata were estimated at much higher dimensions then had been asof thickness. In the neighbouring county of Lancashire the kindred strata were estimated at much higher dimensions then had been assumed for our own county, the coal measures alone being taken at about 7000 feet, millstone grit 3500 feet, and the limestone shale, or Yoredale rocks, at 2000 feet, making a total of 12,500 feet, exclusive of the Permian and Triassic, Oolite, or Tertiary formations, above the carboniferous system; the former of which in Lancashire and Cheshire, where the Oolite and superior rocks are unknown, were computed at over 5000 feet of thickness. Taking the section of Yorkshire geology as thus sketched out, its general details displayed a treasury of the past history of time which, as already observed, could hardly be equaled in any country. We might fall short in occasional strata of the vast development which is to be found in other places, but, as a whole, we had a combination of systems, made up of the most interesting portions of the earth's crust, and in the fossilised remains of vegetable and organic life which those systems contained we might read the bygone history of the globe with a grandeur and interest which no known portion of the earth could supply. Passing on to granite and other primary deposits, which were well illustrated, the lecturer proceeded to say that, in centrast with the characteristic rudeness of the Old Red, the Great Scar limestone seemed to tell of a period of great repose, when the area it now spreads over was submerged, and the coralline structure was effected in the undisturbed bed of a bright translucent sea. The currents, violent and agitated, which had borne along the gravel and mud of the Old Red, were now suspended or changed, and in the texture of the limestone we scarcely perceived the trace of earthy particles, the entire mass being due to the labour and decay of coralline life. Gradually, however, the scare strata were estimated at much higher dimensions then had been as suspended or changed, and in the texture of the limestone we scarcely perceived the trace of earthy particles, the entire mass being due to the labour and decay of coralline life. Gradually, however, the scene was changed, and in the alternations of shale and rock, of which the overlying "Yoredale strata" is composed, we recognised the varying conditions which affected the then relations of sea and land. Through the vast period of the Millstone Grit these agencies were continued, its alternating sandstones and shales testifying to the same varieties of change and condition, when we again arrived at a period of more apparent repose, during the continuance of which the grand treasury of the coal strata was deposited. The predominance of finely laminated shale, which entered so largely into the structure of the coalbearing strata, afforded general evidence of that greater repose, which left to the milder influences of atmospheric or aqueous change the production of those materials of which the sedimentary deposits were composed; but there are other testimonies to which a passing glance might be directed. Taking our own coal fields as the guide, a thickness of about 700 or 800 feet of varying shales had been deposited before any considerable stratum of sandstone rock was formed. The rock was then formed which we now identify as the Flagstone of before any considerable stratum of sandstone rock was formed. The rock was then formed which we now identify as the Flagstone of Elland Edge and other places, where its qualities in a commercial aspect have been long known and appreciated. Its peculiarity of finely granulated texture, and eveness of lamination, affords another proof, when compared with the coarser and more irregular structure of the Millstone Grit, of the altered condition and circumstances which marked the two eras. Besides the Flag, there are several examples of sandstone interstratified with the shales of the coal measure, but they all combined a proportion of argillaceous or earthy matter, which distinguished them from the more arenaceous texture of the Flag and Millstone Grit, and allied them far more closely to the shaley structhey all combined a proportion of argillaceous or earthy matter, which distinguished them from the more arenaceous texture of the Flagand Millstone Grit, and allied them far more closely to the shaley structure of the series of which they formed a part. There were, however, interlaminated with this group of strata those numerous beds and seams of coal on which speculation was not quite so easy. Their position and presence might be claimed in confirmation of the comparative repose which had just been propounded. They tell, however, of fertility and luxuriance, which prompted the most astonished admiration, and seemed to carry us backward to a period when a far different and milder climate existed, and when the conditions which favoured the development of vegetable life were far greater than any now known. The vegetable origin of coal seemed sufficiently demonstrated, but the fact of its being accumulated by successive growths on the spot, or whether the vegetable matter had been transported from a distance, like the earthy substances with which we now find it interstratified, was open to much speculation. Scientific opinions had inclined to each theory. In favour of vegetation on the spot there was the coincidence, very general, but not universal, of coal seams immediately succeeding to a clayey stratum, known as seat-earth, which furnished in some of its varieties the very valuable beds used for fire-clay. In this stratum the coal plants were supposed to have flourished and grown. Very little evidence of this kind can now be traced, although one example seemed to be pretty well attested, when traced, although one example seemed to be pretty well attested, when the stems of fossil plants were found apparently in situ, the trunks erect, and widening at the base, as if they had rooted and grown in the now fire-clay seat. If this example were really authentic, it is very surprising that no repetition had been met with of the same or analogous indications; and if relied on to demonstrate the fact of local vegetation, did it not seem to establish the seat-earth as a nelocal vegetation, did it not seem to establish the seat-earth as a necessity of a coal seam? If so, the theory failed, inasmuch as coal frequently existed in its absence; and, in truth, examples are not wanting of coal being worked with sandstone alike for floor and roof. The theory of transportation by currents, which had floated the vegetable substance from distant places to the spot on which they have since been carbonised, was more easy of realisation, and had some support in the fact that all the mud and gravelly drift which had made up the substance of the associated shales and sandstones had contained at all times a considerable admixture of the very species of vegetable production which, in its more independent state of separation, had

at all times a considerable admixture of the very species or vegetable production which, in its more independent state of separation, had gone to form the substance of successive beds of coal.

The general topography of the Yorkshire Coal Field was well known, extending from the valley of the Aire, southward, to the bordering counties of Derbyshire and Nottinghamshire, a distance of about 34 miles; the transverse width from the outcrop of the underlying millstone grit, to the overlying strata of magnesian limestone,

being about 19 miles, giving a superficial area of about 646 square miles. About 30 beds of coal had been recognised, of thickness varying from 18 in. to 9 ft., the aggregate being about 86 ft. of solid coal. Many thinner seams existed, but they are generally below that proportion which would enable them to be profitably worked. The lecturer then expatiated at considerable length upon the wasteful effects of denudation, and the modifications which had been produced by this and other phenomena upon the surface, more clearly indicated by numerous maps and diagrams with which the lecture was illustrated; and he concluded an able and eloquent discourse, of which the above is a mere outline, by alluding to the Barnsley was illustrated; and he concluded an able and eloquent discourse, of which the above is a mere outline, by alluding to the Barnsley seam of coal. At Barnsley, he said, the principal bed was 9 ft. thick, and yielded upwards of 10,000 tons to the superficial acre. Whenever pits were sunk in that district the speculators never dreamt of stopping at the intermediate seams of coal, but push down to the Nine-feet seam, which, in some instances, was 400 yards from the surface, and even deeper. There were in the surrounding districts of Barnsley large tracts of country in which not a single pit had been sunk; and there were also extensive fields of coal being worked where some years ago not a single bed was believed to exist; and he was strongly of opinion that in this district as in the coal fields of

where some years ago not a single bed was believed to exist; and he was strongly of opinion that in this district, as in the coal fields of Northumberland and Durham, the coal seams, after dipping in that direction, would be found to rise again towards the east.

Mr. J. E. NORRIS moved a vote of thanks to the lecturer, and expressed a hope that Mr. CARTER would supplement his present lecture by another, devoted more especially to the Coal Fields of Barnsley, and their origin. Mr. J. W. WARD seconded the motion, which, having been submitted by the Chairman (Dr. ALEXANDER), was carried with acclamation. Mr. CARTER, in responding, promised to comply with Mr. NORRIS'S request at some future time.

Mr. Norris's request at some future time.

#### MINING, METALS, AND MINERALS-PATENT MATTERS. BY MICHAEL HENRY.

Patent Agent and Adviser, Memb. Soc. Arts, Assoc. Soc. Eng.

Patent Agent and Adviser, Memb. Soc. Arts, Assoc. Soc. Eng.

An invention communicated to Mr. C. E. BROOMAN, by EMILE and P. E. MARTIN, of Paris, relating to the manufacture of cast-steel and its derivatives, has for its chief object the manufacture at one continuous operation on the sole of a reverberatory furnace, heated by gas, of four kinds of cast metal—hard steel, soft steel, cast-iron, and mixed metal—by the simple variation of the doses; this continuous process comprising three features—I. The original bath of casting.—2. The refining in succession by the addition of iron or ore.

—3. The return of the bath to the desired point by adding a fresh quantity of casting, the process being based on the high temperature of the metallic bath, and on the carburation and decarburation of the metallic bath. The second object of the invention is the refining of the casting directly by the chemical action of iron. without any injection of air or steam. Thirdly, the invention has for its object the dusion of the casting in a liquid bath, the surface of which is preserved from oxidation by a gaseous layer, always reductive. Fourthly, the object is to manufacture cast-steel and its derivatives on the sole of a furnace, below which is an empty space for cooling. Fifthly, the invention has for its object the decarburation of the casting in presence of solid matters, which will absorb the carbon, such as ores of metals of iron and steel under the simple action of a very high heat (2900 to 3650° Fahr.) And the sixth object is the regulating of the decarburation and recarburation of the bath by varying the work of the furnace and the dosing of the materials, according to the quantity of metal to be produced.

Mr. JOHN RUSSELL, of Manchester, has specified a system of flatening and straightening saws and similar plates, or blades, of steel during the process of handening. It is usual to imperse the saw of hades, or steel during the

Mr. John Russell, of Manchester, has specified a system of flattening and straightening saws and similar plates, or blades, of steel during the process of hardening. It is usual to immerse the saws, or blades, after they have been made red-hot, in hot or cold oil, or a compound of oil and grease, with or without resin, in order to harden them, and generally they are much buckled, or twisted, when cold; and after being tempered they have to be flattened, straightened, and set by the hammer. Now, in Mr. Russell's system the saws, plates, or blades are made red-hot, and immer-ed in the oil or greasy compound as before, but previously te their becoming cold the bends, buckles, or twists are taken out by placing them between strong surface-plates, and pressing the plates together by one or more screws, cams, falling weights, hydraulic pressure, or any other mechanical means, the pressing-plates being either immersed and working in the oil or grease, or placed outside the cistern, in which latter case the saws, plates, or blades are taken out of the oil or compound, and before they become cold are pressed between the surface-plates; but in either case the articles will be flat, straight, and even when hardened, and thereby a great saving in labour is effected.

Mr. ALEXANDER WILSON of the Cyclons Steel and Ironworks.

In labour is effected.

Mr. ALEXANDER WILSON, of the Cyclops Steel and Ironworks, Sheffield, has patented and specified improvements in the casting of ingots, having for its object the easting of ingots of steel, or other metal, to any given weight. For this purpose the ingot mould is placed upon the table of a weighing-machine, or upon a table supported by a steel-yard or weighted levers, or suspended from a spring balance; the ingot mould, and everything in connection with it, is then weighed. By adding the weight of the ingot to be cast to the weight of the ingot mould and its accessories he is enabled to make the ingot of any given and desired weight; any other arrangement for weighing the ingot mould and its accessories he is enabled to make the ingot mould and its contents may be employed if preferred, and in addition a registered apparatus may be adapted thereto.

The Association for the Prevention of Steam-Boiler Ex-Plosions, and for the Attainment of Economy in the Use of Steam (whose report was referred to last week), held its annual meeting at the Town Hall, Manchester, on Wednesday (Mr. William Fairbairn in the chair), and it is gratifying to find that the position of the society is highly prosperous, and that its operations are pro-ductive of great public benefit. The Chairman stated that the in-creased number of members, and the increased number of boilers insured, had rendered the society not only exceedingly useful, but had tended in a great measure to prevent those disastrous accidents which had so often resulted from boiler explosions. He was quite satisfied The Association for the Prevention of Steam-Boiler Exinsured, had rendered the society not only exceedingly useful, but had tended in a great measure to prevent those disastrous accidents which had so often resulted from boiler explosions. He was quite satisfied that the guarantee fund was established on a true and proper principle, and that it would continue to be found highly advantageous. The association was established upon the exclusive principle of benefiting the members. They had no dividends to make, and they only aimed at making a thorough and careful examination of the boilers under their care, with the view of preventing the occurrence of explosions. The success of the association arose in a great measure not only from the true principle of the guarantee fund, but also from the efficiency of the inspectors, who regularly made a careful inspection of the boilers, and who were not only intelligent and clever engineers, but were able to give sketches and make reports upon every boiler which came under their inspection. As every insured boiler was annually inspected, it was almost impossible for an explosion to take place. The association had already insured the boilers of the House of Commons and the House of Lords, as well as those of the Post Office and the Woolwich Arsenal; and what they now wanted were the boilers of the Admiralty. Applications had been made both to the Duke of SOMERSET and Mr. CORRY, but they had the impression that their own officers were quite competent to manage the boilers. He considered that the course frequently pursued at coroner's inquests was unsatisfactory. It was proposed that application should be made to Government to require the assistance, in cases of boiler explosions, of scientific and trustworthy men, who would be able to show at once the real cause of the accident, and be able to point out to the jury in what way the accident occurred, and how similar catastrophes could be prevented. It was not proposed to apply for an Act of Parliament what way the accident occurred, and how similar catastrophes could be prevented. It was not proposed to apply for an Act of Parliament on the subject, but simply to request the Home Secretary to send directions to all the coroners throughout the United Kingdom to the effect that in all cases of boiler explosions they must be careful in selecting such men to give evidence as would be able to show the real cause of the accident. A series of important resolutions were passed, which will be found in the accidentations of this day. which will be found in the advertising columns of this day's Journal.

STEEL BOILERS-GREAT ECONOMY OF FUEL.-An important series of experiments for the purpose of ascertaining the relative advan-tages of iron and of cast-steel as a material for the construction of steam-boilers has recently been made at the well-known rolling mills steam-boilers has recently been made at the well-knownrolling mills of Messrs. FUNK and Elbers, at Hagen, Westphalia. The boilers used in the experiments were both quite new, never having previously been heated, and were each 34 ft. long and 5 ft. diameter, capable of standing a pressure of 90 lbs. on the square inch. The thickness of the plates in the iron boiler was half an inch, whilst those of the steel boiler were one-third of an inch. Each had a heating surface of 295 ft. and 12 ft. of grate surface; and they were set in a precisely slimilar manner to each other. At first both boilers were filled, and fires were kept under them for several days in order to dry the brickwork, after which the fires were extinguished and the boilers emptied and cleaned. Each boiler then received exactly 712 cubic feet of water at 955 Fahr. temperature; the man-holes were closed, and the water was heated to the boiling point; again the fires were put out, and all the ashes and coals taken away. From this point the boilers were fired afresh, and fed with weighed fuel; the man-holes, hitherto kept closed, were now opened to let the steam escape, and the firing was so well regulated by means of dampers that the velocity of the escaping steam was the same from each boiler. After consuming on each grate 3150 lbs. of coal of the same quality, the cinders of which were burned over and over again, the emptying tube, situated at the lowest part of the boilers, and measured by means of a hydrometer adapted to the tube. The iron boiler showed 357 cubic feet, and the steel boiler 331 cubic feet of the remaining feed water. Therefore, the water evaporated from theiron boiler was 20,085 lbs., and that evaporated from theiron boiler was 20,085 lbs., and that evaporated from the steel boiler 23,523 lbs., showing the evaporating capacity to be nearly 17½ in favour of the steel boiler. One pound of coal evaporated in the iron boiler 6350 lbs. of water, and the steel boiler 7467 lbs. of water at 212° Fahr. At the next trial the whole operation was performed in the same manner, only the velocity of the escaping steam was less. It resulted in showing 19-62 per cent. In favour of the steel boiler. One pound of coal evaporated in the iron 'olin favour of the steel boiler. One pound of coal evaporated in the iron 'olin favour of the steel boiler 7008 lbs. of water. With a view to verify the experiments, the boilers were again tested with sait water. To an equal quantity of feed water in each boiler an equal volume of a strong solution of sait was added. After stirring the water for some time, by means of long poles, and boiling it with closed man-holes, samples were taken out for future analysis. In completing this experiment in which equal quantities of fuel and water were used, further samples were taken out. The analysis of the samples by Dr. Liszt, of Hagen, showed that in the iron boiler one quart of water contained before evaporation 4629 grammes of choride of sodium, and after 5985; in the steel boiler one quart contained 4731 grammes before, and 7385 grammes of salt after evaporation; the iron boiler lost 67½ pints, and the steel boiler 31½ pints, showing nearly 21 per cent. in favour of the steel. The average of the three experiments was about 19¼ in favour of steel.

#### REPORT FROM SCOTLAND.

REPORT FROM SCOTLAND.

MARCH 11.—The persistive prices of the last week in our Pig-Iron market were disturbed on Monday, when a smart rise of 3d, took place, which has since been barely maintained, but with a rather better business doing. The higher shipments this week have also helped to give tone to the market; and some are of opinion that the demand will shortly make prices better. The shipments from the whole of the Scotch ports for the week ended yesterday were 10,790 tons, against 14,050 tons in the corresponding week of last year; but of the former total 7775 tons were shipped foreign, against only 7715 tons in the same week of last year, which shows the deficiency to be wholly in the home consumption, which the moulders' strike is, no doubt, aggravating. There has been an importation of both English and Irish moulders into Scotland within the last two weeks; and, with the secessions from the Union which are taking place daily, it is expected that most of our foundries will, ere long, be fully manned; the secessions from the Union which are taking place daily, it is expected that most of our foundries will, ere long, be fully manned; and the general resumption of business by the ironfounders will do some good to our pig-iron market. To-day prices were rather in favour of buyers, about 4000 tons less done at 52s, 103d, cash, and 53s, and 53s, 1d, a month; closing sellers 53s, cash, 53s, 13d, a month, buyers 13d, per ton less; No. 1, g.m.b., 53s.; No. 3, 52s. 9d.; Gartshenic, 57s. 6d.; Coltness, 59s.; Langloan, 55s. 6d.; Glengarnock (at Ardrossan), 55s. 6d. In manufactured iron, the demand for plates and angle is unimpaired, but it must be admitted that prices have not got so irmly established for these descriptions as was expected from the heavy trade doing. Of course, this is easily accounted for in the absence of orders for bars and rods, the Welsh houses booking orders from Glasgow at 2s, 6d. per ton (f.o.b. at Liverpool) under quotations here. There are, however, a few orders for mixed parcels for shipfrom Glasgow at 2s. 6d. per ton (f.o.b. at Liverpool) under quotations here. There are, however, a few orders for mixed parcels for shipment doing at our merchant mills, which have made makers a little more cheerful; but there is still felt a deficiency in the trade when contrasted with former years. The Glasgow, Blochairn, North British, and Govan brands are quoted 7l.; Rochsolloch, Monkland, Muirkirk, Contbridge, and other brands, are 6l. 16s., less 5 per cent. Ironfounding (with the exception of pipe making), brassfounding, and copper working, are dull; marine castings being in some demand, but cannot be had on account of the moulders' lock-out.

The paralysis which has so singularly attacked the Coal Trade seems settling down into what surgeons would call a state of chronic coma, out of which it would appear almost impossible to rouse it. Our coalmasters seem generally working for the accumulation of stocks, which are being weekly added to, the ironmasters taking possession of the market, and pressing down prices to an abnornal extent by disposing of their surplus out-put at very low prices; and with it all the shipments are not acquiring very large proportions, the quan-

disposing of their surplus out-put at very low prices; and with it all the shipments are not acquiring very large proportions, the quantity for the week sent seaward being 20,275 tons, against 19,595 tons same week last year. Coals have been as low as our present quotations, but if they must be sold at the bank-head for 3s. 3d. a ton, what, we would ask Mr. M\*Donald, should be the price of their working? The colliers have had one conference this month already, but, when the question of wages was propounded, they only saw through the subject "darkly," and adjourned till March 30, when the following programme is to be taken up:—

"1. A perfect organisation of the mining districts.—2. What shall be the governing power.—3. What efforts can be made to regain a portion of the reductions recoulty taken from the men.—4. A general restriction of labour over Scotland."

The case of Mrs. Wilson v. Merry and Cunninghame, which has been appealed to the House of Lords, is exciting some stir amongst the miners at the present time, and great exertions are being made

the miners at the present time, and great exertions are being made to get up a fund for the defence. The miners are but slowly respond-ing to the call, and there are some fears that it may break down for want of cash.

want of cash.

Shipbuilding continues very busy in the Clyde, and the Messrs. Napler have just launched from their Govan building-yard a singular-looking iron-plated twin-screw turret ram, of 1473 tons B.M., for the Dutch Government. This terrible engine of war is named the De Buffel, and will carry two 300-pounder 12½ tons Armstrong guns in the turret, and four smaller broadslide guns on the main deck. Her dimensions are—length, 205 feet, depth 24 feet, with 40 feet beam. Her sides are plated with armour 6 in. thick, backed with 10 in. of teak on an inner skin, right forward and aft, extending 3 ft. below and 2 feet above the water line. The main deck consists of 6 in. of teak on a 1-in. plate. The wall on the main deck round the base of the turret, which is constructed on Capt. Coles' principle, is composed of 8-in. armour backed by 12-in. teak on an inch inner skin. The armour and backing on the turret are similar to those on the wall. Her engines, which are supplied by the same firm, are of 400 nominal horse-power surface condensers, and she is expected to attain a speed of 13½ knots an hour. The De Buffel looks as if she would prove a fearful foe in actual warfare.

## REPORT FROM NORTHUMBERLAND AND DURHAM.

MARCH 12.—The Coal and Coke Trades have continued, on the whole, dull, and many of the works are working short time. The demand for gas and house coal is also extremely limited; and, consequently, the trade generally is entirely without spirit, and how long this is to continue is difficult to foretel. The time is approaching when the export trade will open out; and, therefore, the steam coal trade is hardly so bad as the other branches, but still it has been dull, as the traffic on the Blyth and Tyne Railway sufficiently attests, The new shaft at Holywell has been got down to the coal, and a good seam has been proved, so that a large quantity of coal will be

good seam has been proved, so that a large quantity of coal will be raised here very shortly.

The colliery bindings in Durham were generally carried out on

The colliery bindings in Durham were generally carried out on Saturday, when a large number of men were engaged at most of the works. The prices for work remain precisely the same as before, and the best feeling appears to prevail between the parties, as we have often observed in this letter. Better houses and accommodation are being provided for the workmen at most of the collieries. The pumping operations at the Wallsend and Hebburn Collieries are now going briskly forward. At Wallsend two engines are working four sets of pumps, 21 in, in diameter, from a depth of 42 fms, of course, the quantity of water delivered by these pumps is enormous, and the water is being reduced at all the shafts in the neighbourhood. At Hebburn two engines are winding a large quantity of water although no decided advance has been made downwards for a considerable time, yet the advance made has been easily maintained. siderable time, yet the advance made has been easily maintained, and when it is recollected that a large area is to be drained, the work already accomplished must be acknowledged to be important. As the water is now reduced nearly to the level of the shaft lately put n, a communication will be made between the old and new sh and pumping power erected at the latter, and when this is effected a great advance downwards will be again made.

The Iron Trade, with only one exception, has not improved very materially as yet. The iron and engine-works generally remain in a very depressed state, but the iron shipbuilding trade is certainly

improving, and the demand for ship-plates continues.
At Middlesborough market, on Tuesday, there was a good attendance of gentlemen from the district, and also others from a distance. Makers' stocks of pig-iron are reported to be decreasing. A large quantity of iron was sold, and prices remained firm, as follows:— No. 1, 47s, 6d.; No. 3, 43s, 6d.; No. 4, 42s, 6d. nett cash. The steel rails to be manufactured from Cleveland iron have not yet made their appearance, but it is expected they will be shown shortly. Mr. Jones, of Fox, Head, and Co.'s works, has pledged himself to produce a steel rail, and the delay is supposed to be caused by the erection of necessary machinery. The trade for Coal and Coke at this place

of necessary machinery. The trade for Coal and Coke at this place is in a very depressed state, and prices have a downward tendency. A meeting of the North of England Institute of Mining Engineers was held at the Neville Hall, Newcastle, on Saturday. The Secretary

read the proceedings of the council, after which several new mem the proceedings of the council, after which several new members were elected. The principal business before the meeting was the paper of the Secretary, which was read, describing the various patents which have been taken out for Winding, and other matters connected with the coal trade, a copy of which will be given shortly.

#### REPORT FROM THE FOREST OF DEAN.

MARCH 11.—The Coal Trade of this district is not quite so good as it was a few months since, and the merchants assign the mildness of the season as the principal cause. The weather has something to do with it, no doubt, but we think other causes have greater effects in producing a temporary stagnation in the trade. However, the men of this district have very little cause of complaint, for as yet all the pits are in operation, and we cannot hear of any hands being dispensed with at the principal works, nevertheless it is runnoured that a reduction is likely to take place at the Bilson Colliery, and it is furnished. a reduction is likely to take place at the Bilson Colliery, and it is fur-ther hinted that the men intend to resist; should this be the case we trust the men will see the necessity and wisdom of avoiding a strike. trust the men will see the necessity and wisdom of avoiding a strike. One great blessing, Trade Unions and lock-outs are not known among us; and as long as there exists a good understanding and feeling between masters and men prosperity will result to both parties when trade is good, and the latter be saved from want in times of depression. We trust that the men will never enter into trade combinations—so destructive to progress—against their masters, who are their best friends, for we cannot for a moment suppose that any proprietor would feel inclined, much less determined, to lower poor men's wages without great cause from adverse times. It is all very well for persons who risk their life and limbs underground to endeavour honestly to obtain as much as possible for their labour, but there ought to be reason in all things; and men should look at the other side of the question'too—how owners of large works are to get back their capital expended, with a reasonable percentage as interest, taking into account fluctuations of trade, losses, and all other incidental expenses. We think that if the employed were better educated—but the vexed question is how?—and able to understand the "ins" and "outs" of trade generally, we should have more contentment amongst them, and hear less of trade unions and lock-outs in the mining districts. The Iron Trade of the district appears to improve a little—at least,

The Iron Trade of the district appears to improve a little—atleast, the furnaces in blast are in full operation. We cannot hear that much has been done to facilitate the opening of the Dean Forest Central Railway; it is, however, reported that a branch line, or siding, is in course of construction from the main line to the New Fance of the Central Railway; when the second construction from the main line to the New Fance of the ong, is in course or construction from the main line to the New Fancy Colliery. The committee of consultation appointed on March 29, 1867, to enquire into and devise means for the better working of the Great Western Railway Company's affairs, stated in their concluding report that the reconstruction of the board appears to work satisfactorily, and beneficial results in the conduct of the company's business may be reasonably expected; we trust, therefore, that an extra stimulus may be given to their exertions, and that its influence will be felt by the opening of their branch line which would even

will be felt by the opening of their branch line, which would eventually prove a great benefit.

The Great Western or Bowson Deep Colliery Company are still winding the water out of their pits by means of buckets, or tubs, and although there cannot be a much larger quantity than 300 gallons per minute coming into the works, they are just able when going full water from flowing into the works, they are just able when going full water from flowing into per minute coming into the works, they are just able when going full speed with the winding-engines to keep the water from flowing into the Bilson Colliery. Now, here appears to be a determination on the part of a wealthy company to squander a vast sum of money in carrying out ill-advised schemes, the result of which seems too real and apparent to be denied. If this company had taken the friendly advice tendered them, and secured Forest practitioners, they would never have been in their present deplorable condition. In this district shafts have been sunk and the mineral won under much greater difficulties, and with a much greater inflow of water than was ever experienced at the "Bowson," but the operations were conducted by Forest engineers and managers. No Forest proprietor would think of sinking for iron ore or coal without being provided with pumps and adequate engine-power. At one work here, belonging to Crawshay and Sons, there is a pump, 27 in. in diameter, working day and night, capable of raising over 1800 gallons per minute. A pump 15 in. diameter, giving six strokes per minute, would raise more water than is actually coming into the Bowson Colliery, yet, strange to say, this company seem disinclined to cover their error by resorting to a pumping apparatus—indeed, it seems likely that after spending such a vast sum of money they are more disposed to abandon the works altered vast sum of money they are more disposed to abandon the works al-together; in fact, they have given notice of an intention to wind-up the company's affairs, but whether this implies a total abandonment remains to be seen.

## REPORT FROM MONMOUTH AND SOUTH WALES.

MARCH 12.—The more hopeful and cheerful tone referred to in last week's report, as being evinced in the Iron Trade of South Wales, last week's report, as being evined in the first fraction of south water, is steadily increasing as the spring quarter approaches, and this, no doubt, is to some extent attributable to the large orders expected from the Russian and American markets. At one or two of the leading works the hands are better employed than they have been of late; but, as a rule, it cannot be said that actual operations have increased, and a large number of the workmen are but indifferently explored. The local trade has not materially aftered its position. increased, and a large number of the workmen are but indifferently employed. The home trade has not materially altered its position during the past week, and it is evident that some time will elapse before the monetary difficulties, under which the railway and other large companies have to contend, are removed. A few engagements have been entered into, but only for such materials as are required for immediate use. The Baltic season has now commenced, and already vessels are wanted to convey rails from Newport and Cardiff to Cronstadt and Riga. Large as the exports were last year to the Muscovite Empire, it is confidently expected that there will be an increase this season, notwithstanding the alertness of Belgian and Prussian houses for the contracts for new rails to be shortly given Prussian houses for the contracts for new rails to be shortly given out. Already the orders from that country are for considerable quantities, and not the slightest doubt exists as to the bulk of this year's requirements finding their way into the hands of makers in this district. Several thousand tons have lately been shipped to the United States, and there are some orders remaining on the books; and as stocks are now being slightly reduced, and enquiries steadily increasing, there is every probability of the rail-mills being better em-ployed, and an improved trade done in railroad iron during the spring ployed, and an improved trade done in railroad from during the spring and summer months. Enquiries from the continental markets give indications of an increase taking place in the demand, but this will depend greatly upon a sufficient sum of money being obtained for the carrying out of new, and completing present, sections of railways in various parts of the Continent. For the miscellaneous descriptions there is a slight improvement in the demand, but prices are said to be so low that profits must be very meagre on most brands. Pig-iron be so low that profits must be very meagre on most changs. Figure is commanding a fair sale, and some of the most experienced speak with confidence of a considerable improvement in this branch before Midsummer. The improvement which lately set in in the Tin-Plate Trade is fully maintained, and orders are being more freely given out,

at prices in makers' favour.

For Steam Coal there are as many enquiries as for some months past, but owing to the dissatisfaction still existing among the colliers at work and the large number on strike, shipments are not so speedily made as could be desired. In Glamorganshire, although the hands may be said to have accepted the drop, the quantity of the hands may be said to have accepted the drop, the quantity of coal sent down is barely sufficient to meet the requirements of merchants and shippers. Some uneasiness is now being felt, in consequence of the determination come to at meetings lately held by the hands employed at some children and shippers. Some uneasiness is now being felt, in consequence of the determination come to at meetings lately held by the hands employed at some children and shippers. Some uneasiness is now being felt, in consequence of the determination come to at meetings lately held by the hands employed at some children and shippers. Some uneasiness is now being felt, in consequence of the determination come to at meetings lately held by the hands employed at some children and shippers. Some uneasiness is now being felt, in consequence of the determination come to at meetings lately held by the hands employed at some children and shippers. Some uneasiness is now being felt, in consequence of the determination come to at meetings lately held by the hands employed at some children and held improvement, but business generally is far from being active, and the ferry for the home markets. At some of the works in the work in the states are still worse, as the majority of the bother and the strike, and the district, and the tirties and the strike comment. At Abercarue the prospects are most discounted in the past mouth showing a falling off of 17,36 tons, and unless and in the early part of the year, and at the works at Pentson and the past mouth. At Abercarue the prospects are most discounted in the past mouth and the past mouth. At Abercarue the prospects are most discounted in the past mouth and the past mouth. At Abercarue the prospects are most discounted in the past mouth showing a falling off of 17,36 tons, against 105,248 tons in 1866, and 109,690 tons in 1865. The total experts and the tirtude of the strike commenced, and at that time the manager

spector, Mr. Lionel Brough, has been consulted, and he has expressed his desire to be present when the attempt to renew the ventilation is made. Should the men express their willingness to accept the master's terms, some weeks must elapse before the pit could be got into working order. An offer to supply 700 men from the North of England has been made, and the arrival of a portion of that number in the locality would probably bring the South Wales colliers to their names.

neir senses.

Mr. Richard Laybourne, late locomotive superintendent of the Mon-louthshire Railway, has been elected a member of the Institution of Civil En-lineers. Mr. Laybourne is about to assume the management of the Rhymney

Mr. Robinson has retired from the management of the Pontypool Yorks, belonging to the Ebbw Vale Company; and the same will, in future a under the active supervision of Mr. Abraham Darby, the managing director

the company.

The Blaina Works, which have been at a standstill for some time st, will, in all probability, be re-started before long, and the blast-furnace on ow being got into working order. The commencement of operations see wast works will be a source of gratification to the whole neighbourhou a great amount of distress has prevailed throughout the district since t

as a great amount of distress has prevaited chroughout the district since the stoppage took place.

At the Swansea Assizes, 13 colliers and three women were charged with having riotously assembled, on Dec. 10, and pulled down three houses at Coedeae. The riot arose in consequence of a number of Cornishmen, miners, having been brought into the district to fill the places of men on strike; and after hearing the whole of the facts connected with the same, the jury found the prisoners guilty of assembling together for an unlawful purpose, but not with a common object of demolishing the houses. His Lordship deferred sentence, Judgment was given on Tuesday by Vice-Chancellor Malins in the suit of the Aberaman Ironworks v. Wickens. The facts of the case were given a few week's ago, therefore the recapituation is now unnecessary. The bill was dismissed as against Wickens, and the other defendants associated with him, with costs. To be without prejudice to any action that might be brought at law.

THE LLYNVI WORKS.—A meeting of delegates from the different levels of the coal and iron works was held at the Talbot Arms, Maesteg, on Saturday, to take into consideration further proceedings towards obtaining their rights on the following subject:—A draw every fortnight of 15s. to every 20s. carned, and that the pay should be (as was sometimes since the rule) six and seven weeks alternately, instead, as at present, of nine weeks, with one draw intervening. A petition having been sent up to the board, but no notice having been taken of the same, it was the unanimous opinion of the meeting that, unless their request was compiled with, they would have recourse to unpleasant action; and further, should any person or persons be refused cheques for having changed them previously otherwise than at the company's shop, they and those who were represented by them would resist such oppression to the utmost. The meeting, which was very largely attended, then broke up, with a determination to resist all encroachments on their liberties.—Cambria Daily Leader.

#### REPORT FROM NORTH AND SOUTH STAFFORDSHIRE.

MARCH 12.—The long-continued depression in the Iron Trade of South Staffordshire has been rather less severely felt during the past week, but the condition of affairs is still very trying for persons of small capital, and rumours of probable failures are still floating about. The demand for the best brands of pig-iron is improving, and, as there appears to be some reason to hope that the state of the finished iron trade is about to undergo a change for the better the improvement. trade is about to undergo a change for the better, the improvement is likely to continue. The producers of pigs are moderately well sold for the current quarter, and some have orders running over a consider-able portion of next quarter. Prices are stiffer, but the sharp com-

for the current quarter, and some have orders running over a considerable portion of next quarter. Prices are stiffer, but the sharp competition kept up by other districts has prevented a positive advance in prices. On the whole, a more cheerful tone prevails in the district, but a sudden and very marked revival is scarcely anticipated.

The failure of Messrs, Murcott, Wright, and Co., chain and anchor manufacturers, Tipton. The liabilities are estimated at nearly 30,000d. The assists are not expected to realise a large dividend. The creditors of John Jones, Green Lanes Furnaces, Walsall, are offered a total dividend of st. nit., in two instalments. It is expected that this offer will be accepted, but in the meantime inspectors have been appointed to examine the estate on behalf of the creditors. An action was brought to a close at the Worcestershire Assizes, on Monday, in which plaintiffs, a Mr. Jenkins and his wife, sought to recover damages from the Staffordshire Copper Extracting Company, for injury done to their health and property, through the discharge of noxious gases from the defendants' works they began to feel unwell from the effects of a light blue vapour which was blown from the works. Palus in the throat, retching, and other symptoms compelled them to call in medical aid. The painting and paper of their house walls turned colour, the blinds rotted, and the house, in short, became untenantable. One of the witnesses called by the plaintiffs stated that, in going to his employment, he used to make different routes, according to the direction of the wind, and if ever he did meet the vapours from the befordants' works he went down on his hands and knees to avoid them. Another witness had lost a number of teeth, owing to his gums receding, and he brough them to court in his pocket. A good deal of medical evidence was also called in support of the plaintiffs case. On behalf of the defendants, Mr. D. Walker, of Glasgow, was called. He said he visited the works at Oldbury in July, 1864, and there was then

FIVE MEN CHOKED IN A PIT.—On Wednesday, an accident occurred at Clattershall Colliery, Brettell-lane, by which three men and two boys were suffocated. The colliery is an old on, and is at present worked by Mr. B. Bower, fire-brick manufacturer. There are several old shafts in the colliery, and one of these had been converted into an upcast shaft, by a fire having been pinced in it, with a view to improvement of the ventilation of the workings. Some portion of the old workings was on fire, and these had been cut off from the other part of the colliery by dame built across the air-course. One of these dams was near the bottom of the upcast shaft. This, on Wednesday, was leaky, and it was determined to place a quantity of sand against it, so as to close the interstices. Joseph Shaw, the butty, thought that the sand should be taken down and conveyed by the usual roads through the workings to the place where it was required; but the doggy, Josiah Chivers, was of opinion that it would be casier to take the fire out of the upcast shaft, and throw the sand down the pit. Unfortunately, the butty gave way to him. The sand having been put down, the men went to the place and began their operations. William Shaw, son of the butty, stood at the top of the upcast shaft, to communicate with the men below. About 10 clock, in answer to a signal, he was assured all was right, but he received no answer to the next signal he gave in about a quarter of an hour flow and the choke-damp so strong that they had to return to surface. Means were taken drive the choke-damp so strong that they had to return to surface. Means were taken drive the choke-damp so strong that they had to return to surface. Means were taken drive the choke-damp out; and, this having been effected, several mon penetrated to near the place where the men had been at work, About 20 yards from the colliers are also and the place of the fire having been taken out of the upcast shaft. This destroyed ventilation, and allowed choke-damp to accumulate, with the fatal effec FIVE MEN CHOKED IN A PIT .- On Wednesday, an accident oc-

## REPORT FROM DERBYSHIRE AND YORKSHIRE.

REPORT FROM DERBYSHIRE AND YORKSHIRE.

MARCH 12.—There is no alteration whatever to note in the state of trade in the northern part of Derbyshire. The ironworks are kept going so far as the make of pig is concerned, but for rails, plates, hoops, and sheets, as well as castings, there is no improvement whatever to notice. Most of the collieries are working short time, and even at Clay Cross business is very dull, the company during the past month having only sent 29,926 tons to London, being nearly 5000 tons less than for the previous month. In the Burton-on-Trent district the effect of the dispute, which has now lasted nearly a year, is being felt. Notwithstanding the fact that although a large number of the men still remain out, and are in receipt of Union pay, yet the collieries have rather more than they require, so that not only are the pits working short time, but a good deal or coal is stacked in all directions. The attempt of Mr. Bass, M.P., to bring matters to a close, as was anticipated, signally failed. The men were quite willing to agree to arbitration, and to receive Earl Lichfield as arbitrator; but the masters, on being appealed to, said there was nothing to tor: but the masters, on being appealed to, said there was nothing to be referred. The matter was simply the employment of non-Union men or otherwise, and the masters considered they had a right to employ what persons they pleased, without dictation from any person or persons. As it is, they have their collieries now full handed, so that the men now out, said to number 300, will have to be a continual

ment in the foreign trade may be expected for Hull and Grimsby, to the North of Europe as well as to France. In the present state of trade a reduction of wages is talked of; but as the miners' Union is all powerful, the masters having no cohesion amongst themselves, it is very questionable indeed whether such an attempt would be successful. At the Oaks Colliery the work of clearing is going forward satisfactorily: having got to the dumb-drift in the cupola, some 30 yards from the bottom, the work in that direction has been to some extent suspended. The men are now clearing the road between the downcast shaft and the cupola, so as to obtain a good current of ar. When that is done, and the area of clearing extended, a number of When that is done, and the area of clearing extended, a number of bodies will doubtless be met with. So far as the catastrophe is concerned, it is worthy of remark that now it is scarcely ever mentioned, even in the hamlet close to the pit.

#### FOREIGN MINING AND METALLURGY.

No improvement can be reported in the French metallurgical markets. A few current orders had induced hopes of a general revival in affairs, but these hopes have not been sustained, and all the markets have been quiet. At \$t. Dizier charcoal-made pig for refining is quoted at \$4l\$. 4s. to \$4l\$. 6s. 6d, per ton. In the Meurthe and the Moselle, with the exception of good pig for casting purposes, which is easily run off, affairs remain extremely quiet. In these districts much Essen coke is received, which is less friable, but more sulphurous, than the coke of the Sarre. The latter inconvenience here indicated is deemed of little importance, having reference to the facility with which refining pig can be relieved of the sulphur by means of a blowing apparatus, which is inexpensive and easily established. The combustible of the Sarre district is cheap, and there is, accordingly, a disposition to be very indulgent as regards the coke, as well as regards the coal of the basin of the Ruhr, which also begins to arrive in large quantities in the Meurthe and the Moselle. Efforts are being made at present to obtain a contract for rails for some German railways, but notthing positive is yet known on the subject. The council of administration of the Rive-de-Gler Colliery Company proposes to fix the dividend for the second half of 1867 at 3s. 4d. per share. Meetings are announced as follows:—Montebras Tin Mines Company (Limited), March 28, at Parls; of grande Combe Mines Company, April, 18, at Parls; and Contred to Fishu Colliery Company, May 4, at Parls.

There is a somewhat generally wide-spread hope of a revival in business affairs in Belgium, but nothing has yet occurred to confirm this No improvement can be reported in the French metallurgical mar-

ink the dividend for the second half of 1807 at 3s. 4d. per share. Meetings are announced as follows:—Montebras Tim Mines Company (Limited), March 2s, at Paris; Grande Combe Mines Company, April, 18, at Paris; and Centredu Picun Colliery Company, May 4, at Paris.

There is a somewhat generally wide-spread hope of a revival in business affairs in Belgium, but nothing has yet occurred to confirm this expectation. Nevertheless, orders to meet current requirements continue to arrive at the rolling mills. Upon the whole, if the state of the Belgian iron trade has not materially improved, it is certainly not worse than it formerly was. The Russian Government has made from time to time than it formerly was. The Russian Government has made from time to time than it formerly was. The Russian deprice has given than it formerly was a superior of the decision of the construction of a large network of rallways in the Russian empire has given rise, have been in a great measure carried off by foreign industry, and hence great complaints have been made by several industrials, who have found themselves to be a principally and the suprincipal great of a strong protectionist party, who have brought their influence to bear upon the Government with the greatest vigour, in order to obtain the imposition of a heavy duty on the imports of engines, iron, and railway plant. Some of the Russian industrials, who appear to be actuated by lofty sendence to bear upon the Government with the greatest vigour, in order to obtain the imposition of the residual mentions, in which the hampions of free crade principles, and have prepared a mémole, in which the hampions of free crade principles, and have prepared a mémole, in which the hampions of free crade principles, and have prepared a mémole, in which the hampions of free crade principles, and have prepared a mémole, in which the hampions of free crade principles, and have prepared a mémole, in which the hampions of free crade principles and principles and principles and principles and principl

tion to contend against its natural rivals.

The demand for Chilian copper at Havre has greatly revived during the last few days, and the price of disposable has gradually risen from 711. 8s. to 721., and 731. per ton; for delivery at the end of March business has been done at 721. 14s. per ton, at the end of April at 731. per ton, at the end of April at 731. per ton, at the end of April at 731. per ton, at the end of April at 731. per ton, one lot of disposable refined Urmeneta has realised 731, per ton. Transactions have been sustained, and prices have been firm at Paris, Chilian in bars making 721. to 731., and Corocoromineral 741. to 741. los. per ton. Although the demand for copper has moderated on the Marsellies market, former rates have been firmly malutained. German correspondence reports that on several markets the article has participated in the upward movement noticed in France and England; at Berlin, Cologne, and Stettin there has been a slight majoration on preceding rates. The Dutch tin markets present a more animated aspect: the Netherlands Society of Commerce has announced for March 31 its public sale of Banca tin, when \$1,000 ingots will be offered for competition—17,900 ingots deposited at Rotterdam, 26,000 at Nordrecht, 2100 at Middleburg, and 2100 at Schiedam; these quantities will be offered for sale in lots of 100 ingots each. The direction has made no changes in the conditions of sale, and has announced, as in former years, that it will put no other tin on the market before the public sale, which it proposes to hold in the autumn, that before that period the Government will hold no public sale of this metal in India, and that until the same date the deliveries from Java on Government account will not exceed 10,000 piculs. The total quantity offered for sale is rather sensibly below the estimates, and the good present tone of the article is attributed to this fact. At Amsterdam and Rotterdam, Banca—which was dealt in a week since at 52½ fis.—has since given rise to important sales at 53½ f

498,021 tons; and 1867, 582,420 tons. Last year was, thus, the best on record. The value of these exports was as nanexed :—1858, 3,565,224.; 1859, 4,124,208.; 1860, 3,408,759.; 1861, 2,906,359.; 1862, 2,817,877.; 1863, 3,278,304.; 1864, 3,305,086.; 1865, 3,550,563.; 1866, 4,183,198.; and 1867, 4,889,3691.

### THE ASSOCIATION FOR THE PREVENTION OF STEAM BOILER EXPLOSIONS.

The ANNUAL GENERAL MEETING of this association was HELD at the Town Hall, Manchester, on Tuesday, March 10,—
WILLIAM FAIRBAIRN, Esq., LL.D., F.R.S., &c., in the chair,

when the following resolutions were adopted:—
Moved by the CHAIRMAN, seconded by JABEZ JOHNSON, Esq. (Bolton), supported by — TURNBULL, Esq. (Birkenbead), and unanimously resolved,—That the report of the committee of management to the subscribers be adopted.

Moved by WILLIAM RICHARDSON, Esq. (Oldham), seconded by HENRY R. GREG (Stockport), supported by SANUEL RIGHY (Warrington) and THOMAS WEBSTER, Q.G. (London), and unantimously resolved,—That Investigations conducted by coroners as to the cause of steam-boiler explosions are, as a rule, unsatisfactory, the evidence unsound, and the verdicts contrary to facts, in consequence of which the public are missied, and these disastrous occurrences allowed to continue with constant loss of life. Fuller investigation would prevent this, and it is, therefore, desirable that coroners should at all times awall themselves of competent and independent engineering assistance in conducting enquiries having reference to steam-boiler explosions, and this meeting requests the committee of management to take such steps as they may find necessary to ensure this becoming the established practice.

this becoming the established practice.

Moved by NATHAN WHITLEY, Esq. (Halifax), seconded by — SCARLETT, Esq. (Wakefield), supported by E. BUTTERWORTH, Esq. (Manchester), and unanimously resolved,—That the benefits derived from membership with this Association are not confined to questions of safety merely, but embrace others of importance to steam users—such as the prevention of smoke, economy in the use of fuel, the best construction and equipment of boilers, &c.

Moved by Thos. Heginbottom (Ashton), seconded by — Cross (Wigan), and unanimously resolved,—That the thanks of the Association are due and are presented to the President, Vice-President, and Committee of Management for their past services, and that the following gentlemen be elected for the ensuing year:—

their past services, and that the following gentlemen be elected for the ensuing year:

WILLIAM FAIRBAIRN, Esq., C.E., F.R.S., LL.D., &c., Manchester. VICE-PRESIDENTS.

THOMAS BAZLEY, Esq., M.P., Manchester. HUGH MASON, Esq., Ashton-under-Lyne.
JOHN PENN, Esq., C.E., Greenwich.
JOSEPH WHITWORTH, Esq., F.R.S., Manchester.

EXECUTIVE COMMITTEE.

CHARLES F. BEYER, Esq., Gorton.
ADAM DUGDALE, Esq., Blackburn.
HENRY R. GREG, Esq., Stockport.
CHARLES HEATON, Esq., Bolton.
JOIN HOLDSWORTH, Esq., Eccles.
WM. HUNTRISS, Esq., Halifax.
JABEZ JOHNSON, Esq., Bolton.
J. M'CONNELL, Esq., Manchester.
JAMES PETRIE, Esq., Rochdale.

Mr. FAIRBAIRN having vacated the circle of the close of the company.

Mr. FAIRBAIRN having vacated the chair, it was taken by-

T. WEBSTER, Esq., Q.C. Moved by Charles Heaton, Eq. (Bolton), seconded by — Richardson, Esq. (Whitefield), and unanimously resolved,—That the thanks of the association are due and are cordially given to William Fairbairn, Esq., C.E., F.R.S., LL.D., &c., for presiding at this meeting, as well as for the interest he has always taken in the welfare of the Association, and the constant service he has rendered. ROBERT TONGE, Secretary.

41, Corporation-street, Manchester, March 10, 1868.

## WEST DEVON CONSOLS COPPER

### MINING COMPANY.

Divided into 100 shares of £50 each.
SECRETARY—W. L. ALLEN, Esq.
OFFICES.
160, GRESHAM HOUSE, OLD BROAD STREET, LONDON, E.C.

This prospectus is issued for the purpose of purchasing and works and undoubtedly very valable mineral property, situated a little to the west of the celebrated Devon Great Consols Mines, on the same lodes, which, on an outlay of £1024, have paid in dividends £1,114,112, the present value being £445,440.

#### DEER PARK MINE. NEAR LUCKETT, STOKE CLIMSLAND, CORNWALL.

NEAR LUCKETT, STOKE CLIMSLAND, CORNWALL.

This sett is 1½ mile west of Devon Great Consols. It lies in a stratum of killas at the foot of granite. There are five east and west lodes and five cross-courses in the sett; three of these lodes underlie north, and two south. The two south underlies are 6 fms. apart—one of them is a large and beautiful gossan lode, intermixed with mundic and prian, 2 fms. wide, and underlies 1 ft. 6 in. In a fathom; and there is every reason to believe there is a good course of ore under this gossan, and it is all but certain that it is the Devon Great Consols lode, as it lies in the same direction. This lode has long been searched for, but was never discovered west of Wheal Maria until about seven or eight months since, and is worthy of recommendation, and we offer it with confidence to all who wish to especialted in mining. There is a stream of water on each side of the sett, which will prove of great value in working the mine. One shaft will command three lodes, two south underlies, and one north. The sett is more than a mile long and nearly a mile wide, and two levels are driving on the course of the lodes under the hill, and which leaves a back of more than 50 fms. high. The celebrated Holmbush lode, from which so many thousand ton of ore have begindly crosses this sett, and a level is driven on its course for about 14 fathons.

For further particulars apply to the agent, John Bucknell, Luckett, Calington, Cornwall.

## PIG LEAD.

MESSRS. WESTON AND COLLINGBORN SOLICIT ORDERS for SOFT PIG LEAD, which they are producing of the very best quality Prices on application.

WORKS,—SWINFORD, GLOUCESTERSHIRE.
OFFICE,—18, PETER STREET, BRISTOL.

## GREEN SLATES.

REEN SLATES OF ANY SIZE, and of the CHOICEST COLOUR and QUALITY, can now be OBTAINED from the DOROTHEA WEST SLATE COMPANY (LIMITED), CARNARVON.
The "CHARING CROSS HOTEL," "STAR AND GARTER HOTEL" (Richmond? LONDON-BRIDGE HOTEL," and many other public buildings, are covered with these elegant slates.
Orders will be executed in regular succession.
Apply to Mr. Thomas Harvey, General Manager, 9, Segontium-terrace, Carnarvon, or 33, King-street, Cheapside, London.

## IMPROVED APPLICATION OF WATER POWER.

THE TURBINE. MAC ADAM BROTHERS AND CO., ENGINEERS, SOHO FOUNDRY, BELFAST, after twenty years of experience, have brought their IMPROVED TURBINE to great perfection.

It is applicable to all practicable heights of fall, giving much greater power from the water than any other kind of water-wheel.

On low falls it has the great advantage of not being impeded by floods or backwater.

It is particularly well adapted for situations where the quantity of water avariable, and where other wheels fail.

Its motion is extremely regular, and, when desired, a governor can be applied effectively.

The wheel is at work in a great many places, to which reference will be given.

## HERBERT AULT, ENGINEER, DRAUGHTSMAN AND PATENTEES' ASSISTANT,

VALUER OF MACHINERY, IRONWORKS, RAILWAY and COLLIERY PLANT, and other works; DESIGNER and CONTRACTOR for every description of RAILWAY and COLLIERY PLANT, CONTRACTORS and other LOCOMOTIVES, HOT AIR and HOT WATER APPARATUS, &c.

RATUS, &c.

Preparer of models &c., for patentees, and every other assistance given upon the most moderate terms. Estimates given for taking down and creeting works and other machinery.

Applications addressed to HEBBERT AULT, Netherton, near Dudley, will meet with prompt attention.

N.B.—HEBBERT AULT begs to call the attention of gentlemen about to the up greenhouses or conservatories to his large assortment of designs at exceedingly low prices.

# IMPROVED PNEUMATIC TUNNELLING ENGINE.

THE PROPRIETORS of this INVENTION, in order to bring its CAPABILITIES more prominently before the PUBLIC, are OPEN to TAKE CONTRACTS for DRIVING LEVELS.

Preference will be given to ADIT LEVELS and those places where ROTATORY MACHINERY is in use, and can be applied to driving the AIR COMPRESSOR.

Address—E. S. CREASE, 7, Hoe-street, Plymouth.

STEAM-BOILERS made by WILLIAM WILSON, LILYBANK BOILER WORKS, GLASGOW, on the most improved principles, for home and export. All boilers made of the best material and workmanship, proved and warranted tight under a high pressure, and delivered at any railway station or shipping port in the kingdom at moderate rates. Lithograph of boilers forwarded post-free on application.

#### In the Court of the Vice-Warden of the Stannaries. Stannaries of Devon.

IN the MATTER of the COMPANIES ACT, 1862, and of the A the MATTER OF the COMPANIES ACT, 1802, and of the LADY BERTHA MINING COMPANY.—Notice is hereby given, that ALL CREDITORS of the ABOVE-NAMED COMPANY are REQUIRED on or before Saturday, the 21st day of March Instant, TO SEND IN THEIR NAMES and ADDRESSES, and the AMOUNTS and PARTICULARS of their SEVERAL CLAIMS on the said company, to WILLIAM MICHELL, Esq., the Registrar of the said Court, at Truro.—Dated Truro, 11th March, 1858.

#### In the Court of the Vice-Warden of the Stannaries. Stannaries of Cornwall.

IN the MATTER of the COMPANIES ACT, 1862, and of the WHEAL LUDCOTT AND WREY CONSOLS MINES COMPANY.—Notice is hereby given, that ALL CREDITORS of the ABOVE-NAMED COMPANY are REQUIRED, on or before Wednesday, the 25th day of March inst., to SEND IN THEIR NAMES AND ADDRESSES, and the AMOUNTS and PARTICULARS of THEIR SEVERAL CLAIMS on the said company to WILLIAM MIGHELL, Eaq., the Registers of the said Court, at Truro.

Dated Truro, March 10, 1868.

#### In the Court of the Vice-Warden of the Stannaries. Stannaries of Cornwall.

HARVEY AND OTHERS V. LEAN,

IN RE EAST GREAT WORK MINE.

TENDERS will be RECEIVED at the Registrar's Office, Truro, until the 24th day of March Instant, stating the highest price which will be given for the undermentioned

MINING MACHINERY AND MATERIALS, viz.:—
ONE 40 in. cylinder PUMPING ENGINE, 9 ft. stroke by 8 ft., with BOILER about 11 tons, and fittings, complete; strapping plates; 8 9 ft. 15 in. pumps; 12 9 ft. 11 in. pumps; 9 9 ft. 16 in. pumps; 1 11 in. working; 1 14 in. ditto; 16 in. windbore; 1 6 in. matching; 1 6 in. pole; stuffing box and gland; 1 15 in. doorpiece; 1 11 in. ditto; 2 14 in. buckets; 2 10 in. ditto; rod bolts; 1 horse whim, triangle, shaft tackie, winch chain, and various other articles and effects in general use in mines.

For further particulars, apply to JAMES WILLIAMS, in possession at the mine.

HOGE, HOCKIN, AND MARRACK, Solicitors, Trayou Dated Registrar's Office, Truro, March 11th, 1868. MINING MACHINERY AND MATERIALS, viz. :-

#### CORNWALL.

VALUABLE MINING PLANT AND MACHINERY, AND COPPER AND TIN MINING SHARES, WITHOUT RESERVE.

MR. MARSH WILL SELL, BY AUCTION, at the Guildhall Coffee-house, London, on Thursday, March 19, at Twelveo'clock, in lots, without reserve, the valuable PLANT and MACHNERY used in the working of THE WHEAL EDWARD COPPER MINE, CALSTOCK.

FOUR HUNDRED AND SIXTY FOUR SHARES in the EAST ROSEWARNE COPPER MINE, Gwinear; and ONE HUNDRED AND SIXTY SEVEN SHARES in the WHEAL UNY TIN MINE, Redruth, Cornwall; forfeited for non-payment of calls. Particulars, with conditions of sale, and schedule of plant and machinery, may be obtained of EDWARD KING, Esq., 22, Austinfriars; and at Mr. MARSH'S offices, 54, Cannon-street, London.

## VULCAN WORKS, NORTHAMPTON.

TO ENGINE AND BOILER MAKERS, IMPLEMENT MANUFACTURERS,

IMPORTANT SALE OF STOCK AND MACHINERY. IMPORTANT SALE OF STOCK AND MACHINERY.

MR. W. J. PEIRCE is instructed by Mr. William Butlin (who is declining the engineering business) to SELL, BY AUCTION, on Thursday and Friday next, the 19th and 20th of March, 1868, the WHOLE of the VALUABLE PROPERTY now on his premises, the Vulcan Works, Westonstreet, Northampton, comprising—

A new 8-horse power portable STEAM ENGINE, with oscillating cylinder, and mounted on springs, complete.

A 10-horse power ditto, with double cylinder, Clayton's make, in first-class repair.

and mounted on springs, complete.

A 10-horse power ditto, by Warren, Birmingham, in thorough working order.

A 6-horse power ditto, by Allchin and Son.

A 6-horse power ditto, by Allchin and Son.

A 6-horse power portable BOILER, unfinished.

A Cornish BOILER, of the best Low Moor Iron, as fitted, complete.

Five self acting slide lathes, with face-plates, &c., complete, all in good working order; self acting slide lathes, with face-plates boring lathe, and hand turning ditto; planing machine, by Batho, Manchester; screwing machine, by Buxkon (Wnitworth's thread); slotting machine, set of boiler plate bending rolls; overhead shafting, with pullies, belts, &c., complete, for driving the whole of the machinery; mandrils for lathes; wood and iron patterns for engines and engine work of every description; steel implements; paper mill machinery; water works ditto; Gayton brickyard ditto, and various other machines; quantity of Smith's patent steam plough and combined implement tackle; smith' forges, with bellows and fittings, as crected; portable ditto; benches, with iron vice. as fixed; bollermakers' and smiths' tools; arvils; stock of new brass work and engine fittings; 20 dozen new files; India-rubber hose and suction piping; large quantity of bariron; weighing machines; hand trucks; sheds, as erected; office furniture and fittings; and numerous other effects, full particulars of which will be found in catalogues, to be had at the place of sale, or at the office of the auctioneer, Deengate, Northampton.

The sale will commence each day at Eleven o'clock.

N.B.—The ENGINES will be SOLD on THURSDAY, at Two o'clock pryclesty.

QUELLYN SLATE QUARRY, NORTH WALES.

QUELLYN SLATE QUARRY, NORTH WALES.

TO BE SOLD, BY PRIVATE CONTRACT, the LEASE of the QUELLYN QUARRY. It is situated about eight miles from CARNARON, on the road to BEDDGELERT.

The works have been in operation about four years, during which time a great amount of preparatory work has been done, and, so far as the quarry has been opened, it promises to be a first-class investment. The slate is of good quality, of a beautiful blue colour, without any spots or stripes, and the cleavage is excellent. There is a never-failing supply of water, which may be made available for working the quarry on the lower levels. There is also good tipping ground for the rubbish. During the last six months, although only a limited number of men have been employed, nearly 100,000 slates have been made, specimens of which may be seen at Carnarvon.

The lease is dated July 9, 1864, and is for a term of 30 years, with power of renewal for 30 years, on payment of one year's royalty for such renewal. The dead rent is \$10 per annum, and the royalty 2s, per ton on all marketable slates. The working plant may be taken at a valuation.

For further particulars, apply to Messes, Join Clay and William Gargorfil. 20, Cow-green, Hallfax, or to Mr. Edward Humphreys, Royal 1005.

## MACHINERY AND BRICKMAKING.

MACHINERY AND PLANT FOR SALE.—
THREE 16-horse power STATIONARY WINDING ENGINES, with drums and gearing complete, Cornish boilers.
ONE 6-horse power PORTABLE ENGINE, with link-reversing motion, and 4-ft. drum, and spur gearing to work same.
ONE 9-horse power WINDING ENGINE, vertical boiler, drum 2 ft. 6 in. dlameter, has jib attached, and can be worked as a steam crane. Spare drum, 5 ft. 6 in. long, 3 ft. 6 in. dlameter.
TWO 18-horse power STATIONARY ENGINES and Cornish boilers.

ift, 6 in, long, 3 ft, 6 in, diameter.
TWO 18-horse power STATIONARY ENGINES and Cornis
FOUR STEAM CRANES.
SIX 20-horse power PORTABLE ENGINES.
TEN smaller PORTABLE ENGINES, 16 to 6-horse power.
TWELVE MORTAR MILLS.
TEN BRICKMAKING MACHINES.
THREE CLAY-CRUSHING MACHINES.
THREE CLAY-CRUSHING MACHINES.
THREE CLAYTON'S BRICK PRESSES.
TWO (6009 gallons) wrought-iron WATER TANKS.
SIX (1200 to 1800 gallons) wood TANKS.
12,000 feet run IRON WHEELING PLATES.
300 off-bearing and crowding BARROWS.
1400 dozen HACK CAPS.
50 tons KILN DOORS and FIRE-BARS.

Price and particulars of-

MIDLAND RAILWAY, HAVERSTOCK HILL, LONDON, N.W.

## FOR SALE, BY PRIVATE CONTRACT,

ONE 80 in. cylinder PUMPING ENGINE, with THREE BOILERS and baance-bub, &c., complete.
ONE 72 in. cylinder PUMPING ENGINE, with THREE BOILERS and baance-bub, &c., complete.
ONE 72 in. cylinder PUMPING ENGINE, BOILER, eage, &c.
ONE 24 in. cylinder WINDING ENGINE, BOILER, eage, &c.
ONE 26 in. cylinder WINDING ENGINE, TWO BOILERS and steam capstan
titached.

ttached. ONE 36 in, cylinder STAMPING ENGINE, BOILER, &c., with cast-iron axle

ONE 36 In. cylinder STAMPING ENGINE, BOILER, &c., with cast-fron axle for 60 heads, nearly new; 14 ft. caleiner, complete.

Between 300 and 400 first-rate PUMPS from 6 to 20 inch, with windbores, matchings, H pieces, &c., &c.; 14 plunger poles from 7 to 20 in., with stuffing boxes and glands to fit.

A quantity of hammered iron rod plates, rod plus, staples and glands, &c.; a quantity of pitch plue and other main rods from 10 to 15 in.; 2 capstans &nd 3 shears; capstan rope, chains, and a variety of other articles. Further particulars may be had of Mr. Wil. POLKINGHORNE, the purser, at the mine; or of WM. WEST. RSG, C.E., Tredenham House, St. Blazey.

Dated Par Consols Mine, Par Station, Cornwall, 21st November, 1867.

## ENGINES AND BOILERS FOR SALE.

MESSRS NICHOLLS, MATHEWS, AND CO. have FOR SALE ENGINES of VARIOUS SORTS and SIZES, AND SEVERAL GOOD TEN TON BOILERS. All are in excellent condition, and well worthy the attention of purchasers. tention of purchasers.

Full particulars may be obtained by applying to Mosses. Nicholls, Mathews, and Co., Bedford fromworks, Tavistock. SILVER VEIN MINE, LOSTWITHIEL, CORNWALL.

TO BE SOLD, in One Lot, and may be negociated for by private treaty until Friday, the 20th March Instant, comprising—
THE LEASE OF THE MINE, PLANT, MACHINERY, AND MATERIALS.

THE LEASE OF THE MINE, PLANT, MACHINERY, AND MATERIALS.
Including ONE 60 in. cylinder ENGINE. 9 ft. stroke, equal beam, with TWO
Il ton BOILERS; ONE 24 in. cylinder ENGINE, 6 ft. stroke, with ONE 10 ton
BOILER; a 20 ft. WATER WHEEL, with crusher attached; 80 fms. 16 in. pitwork; angle and balance bobs; tramroads at surface and underground; one
8 arm capstan; shears, with pulleys complete; capstan rope, whim rope (wire),
nearly new; drossing machinery; inducrs', smiths', and carpenters', and sundry
other tools, &c., all in good condition.
For further particulars, and to treat for the same, applications may be made
to Mr. W. WARD, Crosby House, 98, Bishopsgate-street Within, London; or to
Capt. JAMES SECCOMBE, Liskeard, Cornwall.

SLATE WORKS, near KINGSBRIDGE, DEVON.

SLATE WORKS, near KINGSBRIDGE, DEVON.

TO BE SOLD, the LEASE and PLANT of WORKS, situate on the SALCOMBE RIVER, withita FOUR MILES of the SEA. Vessels from 80 to 100 tons may be loaded without any carriage. The property consists of 65 acres, held under lease from Earl of Devon, on most favourable terms. There are five veins of slate, one of which has been worked upwards of 100 years. New works have been opened two years back, producing slate of first-rate quality, and equal to Welsh slate in colour. Specimens of the slate, with plan of property, may be seen, and further particulars obtained, at the offices of Messrs. Sconell and Jenkinson, 116, Leadenhall-street, London, E.C.; or of the Manager of the Courtenay Quarry, Chillington.

Any person having £2000 or £3000 at command will find this a favourable op-portunity for profitable investment.

### Army Contracts.

Army Contracts.

WAR OFFICE, PALL MALL, LONDON,

TENDERS WILL BE RECEIVED by the
Director of Contracts, War Office, Pall Mall,
London, until Twelve o' cick noon on the 26th instant,
for the SUPPLY of FORAGE, for the use of Her
Majesty's Land Forces, stationed in the following places, from 1st May to 31st
October, 1868:—

LONDON DISTRICT.

Commissariat Office, 109, Victoria-street, London, S.W.
4. Hyde Park, Kensing5. Sandhurst,
101, Regent's Park,
101, Right's Park,
101, Right's Park,
101, Right's Park,
102, Right's Park,
103, Right's Park,
103, Right's Park,
103, Right's Park,
104, Right's Park,
105, Right's Pa 2. Hampton Court. 3. Hounslow & Kneller Hall.

NORTHERN DISTRICT.
Commissariat Office, Barrack-street, Hulme, Manchester, m-under-Lyno.
ngham.
T. Leeds,
ord,
ey.
B. Liverpool, Liscard,
and Perch Rock.
9. Newcastle-on-Tyne,
10. Northampton.
EASTERN DISTRICT.

10. Manchester,
10. NEASTERN DISTRICT. 1. Ashton-under-Lyne, 2. Birmingham, 3. Bradford, 4. Burnley,

EASTERN DISTRICT.
Commissariat Office, The Camp, Colchester.
2. Norwich.
3. Colchester. 1. Ipswich.

2. Norwich.

WOOLWICH DISTRICT.

Commissariat Office, Royal Artillery Barracks, Woolwich, S.E.

2. Shoeburyness.

3. Warley.

CHATHAM DISTRICT.

Commissariat Office, The Barracks, Chatham.

1. Chatham.

SOUTH EASTERN DISTRICT.

Commissariat Office, 4. Castle-street, Dover.

2. Canterbury.

3. Dover.

SOUTH WESTERN DISTRICT.

Commissariat Office, 4. Castle-street, Dover.

2. Canterbury.

SOUTH WESTERN DISTRICTS 1. Ipswich.

3. Dover.

3. Dover.

SOUTH WESTERN DISTRICT.

Commissariat office, St. Thomas-street, Portsmouth.

1. Dorehester.

WESTERN DISTRICT.

Commissariat Office, 20, East Emma-place, Stonehouse, Plymouth.

1. Bristol and Horheld.

2. Exeter and Topsham.

3. Plymouth, Devonport, Tregantic, and Seraesden Forts, Maker Barracks and Heights.

4. Falmouth, Pendennis, and St. Mawes.

NORTH BRITAIN.

Commissariat Office, 3, Hill-street, Edinburgh.

1. Hamilton.

2. Leith Fort & Piershill.

3. Perth.

Tenders must be made for each of the above-mentioned stations or barracks, as separately grouped and numbered.

Tenders must be made for each of the above-mentioned stations or barracks, as separately grouped and numbered.

Printed forms of tender, initialed and numbered, and conditions of contract may be obtained on application to the Senior Commissariat Officer of the District, between the bours of 10 and 4 o'clock, and no tender will be entertained unless made upon the printed forms so obtained.

Tenders on the printed forms must be properly filled up and signed, and no tender will be noticed unless received at the War Office, Pall Mail, under closed envelope, before 12 o'clock noon on the 26th Instant, addressed to the Director of Contracts, and marked outside "Tender for Commissariat Supplies."

THOMAS HOWELL, Director of Contracts.

War Office, Pall Mail, London, 5th March, 1868.

## Contract for Welsh Pig Iron. BY ORDER OF THE SECRETARY OF STATE FOR INDIA IN COUNCIL.

NOTICE IS HEREBY GIVEN that the DIRECTOR-GENERAL OF STORES FOR INDIA will be READY, on or before Monday, the 23d instant, to RECEIVE PROPOSALS in writing, sealed up, from such persons as may be willing to SUPPLY—

FOUR HUNDRED TONS of WELSH PIG IRON.

And that the conditions of the said contract may be had on application, addressed to the Director-General of Stores, India Office, Westminster, S.W., where the proposals are to be left any time before Two o'clock p.M. of the said 23d day of March, 1808, after which hour no tender will be received.

India Office, March 12, 1868.

GERALD C. TALBOT, Director-General.

## WATERWORKS FOR THE CITY OF PEST.

CAST-IRON WATER COCKS are WANTED, from 4 inches to 20 inches in diameter.
All ENGINEERS and MAKERS, who are WILLING to SUPPLY the Municipality of the City of PEST with the above-described COCKS, are invited to SENDfor the PRINTED SPECIFICATIONS, FORMS OF TENDER, and DRAW-INGS, to the Oberbürgermeister and President of the "Stadt Wasserkunst Commission," at Pest, on or after the 9th of March, and they are requested to return the tenders, endorsed "Tenders for Cast-Iron Water Cocks," properly filled up and scaled, on or before TUESDAY, the 31st of next MARCH.

Pest, 16th February, 1868.

WATERWORKS FOR THE CITY OF PEST.

CAST-IRON WATER PIPES are WANTED from 4 inches to 20 inches in diameter.

All MANUFACTURERS of WATER PIPES, who are WILLING to SUPPLY the Municipality of the City of Pest with such PIPES, are invited to SEND for the PRINTED SPECIFICATIONS, FORMS OF TENDER, and DRAWINGS, to the Oberbürgermeister and President of the "Stadt Wasserkunst Commission," at Pest, on or after the 9th of March, and they are requested to return the tenders, endorsed "Tenders for Pipes," properly filled up and scaled, on or before TUESDAY, the 31st of MARCH next,

Pest, 16th February, 1868.

## WATERWORKS FOR THE CITY OF PEST.

A STEAM ENGINE is REQUIRED of from 30 to 35-horse power (nominal), for the COMMENCEMENT of the SUPPLY.

The ENGINE to be upon the condensing principle and horizontal construction, working three pumps with a fly-wheel, in such manner that the three pumps shall raise the water 50 feet, or the two pumps 75 feet, or the single pump 150 feet. The engine and pumps to be self-contained, and erected upon a strong cast-tron frame.

primps shall relies the water 50 feet, or the two pumps is seen, when he was trong cast-fron frame.

The engine and pumps to be self-contained, and creeted upon a strong cast-fron frame.

The SUCTION-PIPE to be 20 inches diameter and 25 feet long, properly fitted. The PUMPS to be supplied with proper vacuum and air vessels.

There must be TWO STEAM BOILERS, with all proper fittings; each to be amply sufficient to work the engine with a moderate fire.

The time being too short to enable makers to supply new models, they are requested to send drawings and descriptions of their make of engine, and of its capabilities, with their tenders. It is requested to state separately the price for the engine, the beliers, and the pumps.

The masonry and the foundations for the engine, &c., &c., will be supplied by the City of Pest; the contractor is, however, bound to erect and set to work his engine, boilers, pumps, and to be responsible for the same for three months after the engine is started.

One-third of the contract sum to be paid when the contract is closed, the second third when the engine is started, and the remaining third when the three months' trial is passed, and the engineer-in-chief, Mr. W. LINDLEY, certifies that the contract has been completed to his satisfaction.

Sealed tenders, endorsed "Tender for Steam-Engine," to be addressed to the Oberbürgermeister and President of the "Stadt Wasserkunst Commission," at Pest, 1868.

The engine to be started on or before the 31st day of March.

The engine to be started on or before the 31st day of March.

The engine to be started on or before the 31st day of March.

The engine to be started on or before the 31st day of March.

## PIPE-PROVING MACHINE WANTED.

THE COMMISSION of the CITY OF PEST WATERWORKS
REQUIRES a PIPE-PROVING MACHINE.
The PIPES to be proved are from 4 inches to 24 inches in diameter; the pressure up to which the machine can prove them must be equal to a column of water 600 feet in height.
The machine to be delivered on or before the 31st of May, at the lânding quay of the waterworks at Pest, and to be paid for as soon as proved and certified by the engineer-in-chief, Mr. W. LINDLEY.
Makers who are prepared to supply a machine of the above description, and to deliver it at the City of Pest, are requested to send their drawings and descriptions, with tender, addressed to the Oberbürgernieister and President of the Waterworks Commission, on or before the 31st of March next.
Pest, 17th February, 1868.
W. LINDLEY.

RAILWAY WAGON WORKS, BARNSLEY MESSES. G. W. AND T. CRAIR

ARE PREPARED TO SUPPLY COAL AND COKE WAGONS OF EVERY DESCRIPTION,

Either for cash, or by preferred payments through wagon-leasing companies · WAGONS PROMPTLY REPAIRED.

THOMAS EDINGTON AND SONS.

PHŒNIX IRONWORKS, GLASGOW, MANUFACTURERS OF ALL KINDS OF GAS AND WATER PIPES, BRANCHES, BENDS, WATER-TRAPS, TANK-PLATES, VALVES, and GENERAL CASTINGS.

ALSO,

RAILWAY CHAIRS AND SLEEPERS, AND GRIFFIN'S PATENT PERMANENT WAY. LONDON OFFICE,—63, OLD BROAD STREET.

THE BEVERLEY IRON AND WAGON COMPANY

MANUFACTURERS OF RAILWAY WAGONS, WHEELS AXLES, LORRYS, CARTS, WOOD WHEELS, &c., IRONWORKS, BEVERLEY, YORKSHIRE.

THE RAILWAY SPRING COMPANY (LIMITED), DIAL WORKS, WEST BROMWICH,

MANUFACTURERS OF
RAILWAY, WAGON, AND CARRIAGE SPRINGS. Orders executed with the utmost dispatch, of first-rate quality, and on moderate terms.

BAGILLT OIL COMPANY (LIMITED),

MANUFACTURERS OF BLACK GREASE FOR COLLIERY WIRE ROPES, TRAMS, WAGONS, &c., £5 PER TON TORCH AND LAMP OIL, 1s. PER GALLON (Casks free). LUBRICATING OIL, 1s. PER GALLON (Casks free).

TO COLLIERY PROPRIETORS AND OTHERS IMPROVED PATENT COAL SCREENS,

FOR SCREENING AND TIPPING COALS DIRECT FROM THE PIT WAGON INTO RAILWAY WAGONS,
MANUFACTURED BY

JAMES MOWLE AND CO., FOUNDRY, CHESTER. MAKERS of STEAM-ENGINES and BOILERS, PUMPS, and all kinds of MACHINERY for MINES.

C O A L C U T T I N G M A C H I N E R Y.—
The WEST ARDSLEY COMPANY having, by recently patented improvements, perfected their coal cutting machinery, worked by compressed air, are NOW READY to MAKE CONTRACTS for the CONSTRUCTION and USE of their MACHINES.

neir MACHINES.
The results of twelve months' experience in the working of these machines, by the West Artsley Company, have proved most satisfactory, their use being found to the APEN the COST and IMPROVE the average SIZE of the COAL, to IGHTEN the LABOUR, and also to MODIFY the SANITARY CONDITION the MINE.

All communications to be made to Messrs. Firth, Donisthorps, and Bower. No. 8, Britannia-street, Leeds.

NOTICE.—The WEST ARDSLEY COMPANY, having reason to believe that their patents are being infringed upon, hereby give notice that they will TAKE LEGAL PROCEEDINGS AGAINST ALL PARTIES who may MAKE FOR SALE, or USE ANY MACHINERY in the construction of which any such INFRINGEMENT is MADE.

PEACOCK AND BUCHAN'S COMPOSITIONS. Nos. 1 and 2 for SHIPS' BOTTOMS; 3 and 4 for RAILWAY AND MINING PLANT, &c.

FROM P. J. MARGERY, ESQ., C.E., ENGINEER OF THE SOUTH DEVON RAIL—WAY COMPANY.

South Devon Railway Engineer's Office, Dawlish, Sept. 23, 1865.

I have extensively used Messirs. Peaceck and Buchan's No. 3 paint or composition, on the viaducts and bridges of the South Devon Railway, and I consider it to be a paint of very good qualities, and that two coats of it are equal to three of other paints; also that its durability is greater.

Signed P. J. MARGERY, Engineer S.D.R., M.I.C.E.

N.B.—The South Devon Railway Company have continued to use it, and are now painting their stations with it.—February, 1868.

EXTRACT OF A LETTER FROM EDWARD WOODS, ESQ., C.E.

3, Storey Gate, Westminster.

DEAR SIR.—Please prepare 6 cwts. of your composition for preserving timber; aut up in strong wooden casks, to go round the Horn for the Copiapo Railway ompany.

Believe me, yours truly,

Capt., George Peacock,

(Signed)

EDWARD WOODS. Company.
Capt. George Peacock. For price, &c., apply to-

PEACOCK AND BUCHAN, SOUTHAMPTON. DYNAMITE, OR NOBEL'S PATENT SAFETY BLASTING POWDER,
May now be had from

MESSRS. WEBB AND CO., CARNARVON,

Sole consignees from the patentee. This powerful BLASTING AGENT will not explode from a spark, or concussion alone, but requires the combined effect of both, and is fired by a strong percussion cap and ordinary fuse. In a compressed state it may be fired in damp holes, or under water.

holes, or under water.
Force, SEVEN TIMES that of the BEST GUNPOWDER.
It will shiver to pieces cast or wrought-iron, or the toughest teak timber. No tamping is required. It is by far the safest explosive for blasting purposes ever discovered.

NITRO-GLYCERINE, OR NOBEL'S PATENT BLASTING OIL.

THE EXPLOSIVE FORCE of this BLASTING OIL is TEN TIMES that of GUNPOWDER, and the ECONOMY and SAVING in TIME, LABOUR, and COST in removing granite and hard rock, in sinking shafts, driving tunnels, and opening forward in close ends is immense. It will not explode from a spark or fire, but from concussion alone, and is consequently much less dangerous than gunpowder or gun-cotton. Being heavier than water it sinks to the bottom of a wet hole, no other tamping than water being required.

One charge of this blasting oil, which is now being used with wonderful effect in all the largest slate quarries in North Wales, will displace as much slate rock as four or five charges of gunpowder; and its great force, acting on a large quantity of good slate rock, shakes and displaces it at the natural joints, or cracks, without damaging the slabs nearly so much as the more numbrous blasts from any other blasting material would do.

This invaluable quarrying agent may now be obtained from Messry with and Co., Carnaryon, sole consignees from the patentee.

BITISH, COLONIAL, AND FOREIGN PATENTS, REGISTRATION OF DESIGNS, COPYRIGHTS, TECHNICAL TRANSLATIONS, DRAWINGS, &c.

M. M. ICHAEL HENRY,
Mund. Soc. Arts, Assoc. Soc. Engineers, Author of the "Inventors' Almanac," and the "Defence of the Present Patent Law," DATENT REGISTRATION AND COPYRIGHT AGENT AND ADVISER. Inventors advised in relation to Patents and Inventive and Industrial Matters. Printed information sent free by post. Specifications drawn and revised. Searches conducted. Abstracts, Cases, and Opinions drawn.

Translations of Catalogues, Trade Notices, and Circulars for the approaching Paris Exhibition. Mr. Henry has had especial experience in technical Frach, and in French Manufacturing and Commercial Matters.

Offices, 68, Fleet-street, E.C., London, corner of and entrance in Whitefrierstreet.

Swan Rope Works.

CHAPEL STREET, LIVERPOOL,
MANUFACTURERS OF FLAT and ROUND HEMP and IRON and STEEL
WIRE ROPES for MINING, RAILWAY, and SHIPPING PURPOSES.
MANULA ROPE OF SUPERIOR QUALITY, FIFTY PER CENT. STREEGER
and THIRTY PER CENT. CHEAPER than Russian hemp rope.
WIRE ROPE OF FIRST QUALITY WIRE, and the HIGHEST STANDARD
OF STHENGTH.

of STRENGTH.

I X P O U N D S P E R W E E K
White laid up by injury, and
ONE THOUSAND FOUNDS IN CASE OF DEATH CAUSED BY ACCIDENT
OF ANY KIND,
May be secured by an annual payment of from £3 to £6 5s.
TO THE
RAILWAY PASSENGERS' ASSURANCE COMPANY.
RAILWAY ACCIDENTS ALONE
May also be provided against by insurance tickets for single or double journies.
For particulars apply to the Clerks at the Railway Stations, to the
Local Agents, or at the
OFFICES,—64, CORNHILL, and 10, REGENT STREET, LONDON.
W. J. VIAN, Soc.

NICHOLLS, MATHEWS, AND CO., ENGINEERS,
BEDFORD IRONWORKS, TAVISTOCK.
MANUFACTURERS of STEAM ENGINES OF EVERY DESCRIPTION, made
on the BEST and NEWEST PRINCIPLES. We beg more especially to call the
attention of the public to the MANUFACTURE of our BOILERS, which have
been tested by most of our leading engineers. PUMP WORK CASTINGS of
EVERY DESCRIPTION, both of brass and iron. HAMMERED IRON and
HEAVY SHAFTS of ANY SIZE. CHAINS made of the best iron, and warranted. MINERS' TOOLS and RAILWAY WORK of EVERY DESCRIPTION.
ALL ORDERS FOR ABROAD RECEIVE their BEST ATTENTION.
NICHOLLS, MATHEWS, and Co. have had 20 years' experience in supplying machinery to foreign mines, and selecting experienced workmen to erect the same,
where required.
Mess-rs. NICHOLLS., MATHEWS, and Co. have always a LARGE SPOCK of
SECOND-HAND MINE MATERIALS in stock, and at moderate prices.

WILLIAMS'S PERRAN FOUNDRY COMPANY,
PERRANARWORTHAL, CORNWALL.
MANUFACTURERS of STEAM PUMPING and EVERY OTHER KIND of
ENGINES, together with BOILERS, PUMP CASTINGS, and MINING TOOLS
of every description, of the very best quality. Estimates given for the surphyof
any amount of machinery. London Agent.—Mr. EDWARD COOKE, 76, Old Broad-street, London, E.C.

RAILWAY CARRIAGE COMPANY (LIMITED)

RAILWAY CARRIAGE COMPANY (LIMITED)

STABLISHED 1847.

OLDBURY WORKS, NEAR BIRMINGHAM.

MANUFACTURERS OF RAILWAY CARRIAGES and WAGONS, and EVERY
DESCRIPTION OF IRONWORK.

Passenger carriages and wagons built, either for cash or for payment
over a period of years.

RAILWAY WAGONS FOR HIRE.

CHIEF OFFICES,—OLDBURY WORKS, NEAR BIRMINGHAM,
LONDON OFFICES,—6, STOREY'S GATE, GREAT GEORGE STREET,
WESTMINSTER.

THE BIRMINGHAM WAGON COMPANY (LIMITED)
MANUFACTURE RAILWAY WAGONS of EVERY DESCRIPTION, for
HIRE and SALE, by immediate or deferred payments. They have also wagons
for hire capable of carrying 6, 8, and 10 tons, part of which are constructed speoially for shipping purposes. Wagons in working order maintained by contract.

WAGON WORKS,—SMETHWICK, BIRMINGHAM.

\*\* Loans received on Debenture; particulars on application.
London Agent—Mr. E. B. SAVILE, 67, Victoria-street, Westminster, S.W.

STAFFORDSHIRE WHEEL AND AXLE COMPANY
(LIMITED),
MANUFACTURERS OF RAILWAY CARRIAGE, WAGON, and CONTRACTORS' WHEELS AND AXLES, and other IRONWORK used in the CONSTRUCTION OF RAILWAY ROLLING STOCK.
OFFICES AND WORKS,
HEATH STREET SOUTH, SPRING HILL, BIRMINGHAM.
LONDON OFFICE,—118, CANNON STREET, E.C.

JOHN AND EDWIN WRIGHT,

PATENTESS.

(ESTABLISHED 1770.)

MANUFACTURERS OF EVERY DESCRIPTION OF IMPROVED PATENT FLAT AND ROUND WIRE ROPES, From the very best quality of charcoal iron and steel wire.

PATENT FLAT AND ROUND HEMP ROPES.

IIPS RIGGING, SIGNAL AND FENCING STRAND, LIGHTNING CON DUCTORS, STEAM PLOUGH ROPES (made from Webster and Horsfall's patent steel wire), HEMP, FLAX, ENGINE YARN, COTTON WASTE, TARPAULING, OIL SHEETS, BRATTICE CLOTHS, &c. UNIVERSE WORKS, MILLWALL, POPLAB, LONDON. UNIVERSE WORKS, GARRISON STREET, BIRMINGHAM.

CITY OFFICE No. 5, LEADENHALL STREET, LONDON, E.C. GALLOWAY BOILER TUBES. O CORNISH or LANCASHIRE BOILERS should now be MADE without having the FLUES STRENGTHENED by means of so TUBES. They effect a considerable saving in fuel, increase the quantity team, and also improve the circulation, thus preventing priming, & W. AND J. GALLOWAY AND SONS, ENGINEERS, MANCHESTER

GALLOWAY BOILER TUBES A RE ESPECIALLY ADAPTED for INTRODUCTION into EXISTING BOILERS. Upwards of 40,000 of these TUBES are now working. Full particulars of names of firms who have them at work may be had from the Patentees—

W. AND J. GALLOWAY AND SONS, ENGINEERS, MANCHESTER.

STEAM ENGINES, ENGINEERS' TOOLS, BUILDERS'.

CONTRACTORS'. COLLIERY PLANT, and MACHINERY

Of every description, new and secondhand. FOR SALE OR HIRE,

At greatly reduced prices. Best materials, workmanship, and finish, warranted.

WHEATLEY KIRK,

ENGINEERING, MILL VALUER, AUCTIONEER, &c.,

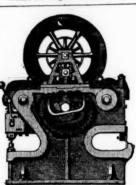
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AXLES, SHAFTS and
FORGINGS OF EVERY DESCRIPTION.
DOUBLE SHEAR STEEL
BLISTER STEEL,
SPRING STEEL,
GERMAN STEEL,
WM. GREAVES & SON: Locomotive Engine, Railway Carriage and Wagon

SHEAF WORKS AND SPRING WORKS, SHEFFIELD. ODON WAREHOUSE, 35, QUEEN STREET, CANNON STREET, CITY, E.C. Where the largest stock of steel, files, tools, &c., may be selected from



JOHN CAMERON'S

JOHN CAMERON' PATENT DOUBLE CAM LEVER
PUNCHING and SHEARING
MACHINE,
1½ × 1½ in. 24 in. =8 tons, £185.
WOOKS,
EGERTON STREET, HULME,
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SUGHN CAMERON
P U M P S,
From 2 to 12 in. diameter,
SINGLE AND DOUBLE ACTING.
WORKS,
EGERTON STREET, HULME,
MANCHESTER.

NOTICE.—CAPT. S. M. RIDGE, of LLANIDLOES
MONTGOMERYSHIRE (late manager of the Brynpastig and Cwm Fron
Mines, and others, in Shropshire and Wales), is NOW OPEN to INSPECT and
faithfully REPORT UPON ANY LEAD MINE in either of these localities that
may be confided to his care, having had better than 30 years' experience in lead
mining, as miner and agent.—Address, Capt. S. M. RIDGE, Llanidloes, Montzoneryshire.

HEATON'S PATENT

## THE LANGLEY MILL STEEL & IRONWORKS COMPANY (LIMITED),

LANGLEY MILL, NEAR NOTTINGHAM,

Are now making this Steel according to Mr. HEATON'S PATENTS, dated 17th March, 1866, and 3d May, 1867, under the direct superintendence of the Patentee.

It has been tested in a great variety of ways, and is found to be at least equal to any that can be met with. It is uniform in quality, and is suitable for any purpose to which high-class steel can be applied. Samples and prices can be obtained on application to the company; or to any of their recognised agents.



TO LIFT, RAPIATE, AND TRAVEL BY STEAM.

THE

FOR FEEDING BOILERS AND RAISING WATER FOR OTHER PURPOSES. By Royal Letters Patent, No. 1539, dated June 2, 1866.

Steam Regulator Valves, and also Check Valves, specially made to suit these Engines, can be supplied. Each Injector is guaranteed to work effectually, and any one failing to give satisfaction may be returned.

CIRCULAR, WITH TESTIMONIALS AND FULL PARTICULARS, WILL BE SENT ON APPLICATION.

BROWN, WILSON, AND CO., 80, CANNON STREET, E.C., LONDON.

PATENT STEAM CRANE.

PARIS EXHIBITION,) Silver Medal for STEAM CRANES. Bronze Medal for DONKEY FEED PUMPS. 1867-A WARDS.

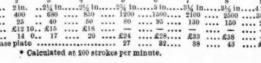


BROTHERS,  ${f APPLEBY}$ EMERSON STREET, SOUTHWARK,

LONDON, S.E.,

Engineers and Patentees of STEAM CRANES, DONKEY PUMPS, &c.

PATENT DONKEY PUMPS.





# J. JACKSON AND CO., ENGINEERS, LONDON, E.C.

PATENT CHAIN

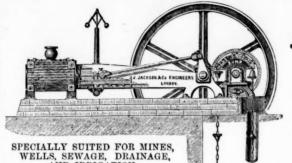
BASTIER'S

This is the most efficient pump ever introduced to public notice for deep vertical lifts. It is cheap in its first cost, requires no cleaning and little attention, and the cost of maintaining it with duplicate wearing parts is very small.

The water is lifted through vertical tubes. At every interval of 50 yards a contracted part, or working barrel, is inserted, smaller in diameter than the main pipe, one of which is always placed at the lower end. An endless chain passes over the driving wheel at the top, going down free, and coming up through the tube, into which it enters by a bell-shaped mouth-piece. On this chain are fixed indiarrabber discs, smaller in diameter than the main pipe, but fitting tight in the working barrels, so that all the water that enters is forced up and carried through the main pipe. The discs being free all round from the pipe for nine-tenths of the whole distance, reduces the friction to a minimum.

Eighty-seven per cent, of the whole area of the tube is lifted in water. A 3½ in. pump has lifted 120 gallons per minute, from a depth of 270 ft., with 10.75 indicated horse power; other sizes in proportion. These pumps are now at work throughout England, sizes varying om 2½ to 15 in. diameter, and up to 300 ft. deep.

A SMALL PUMP MAY BE SEEN AT WORK ON APPLICATION To



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MINING OFFICE, NORTHGATE, DARLINGTON: AGENTS FOR SCOTLAND,

MESSRS. P. AND W. MACLELLAN,

127 and 129, TRONGATE, GLASGOW.

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AND IRRIGATION

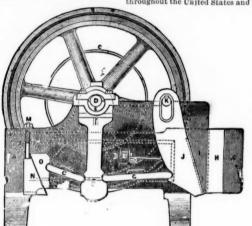
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#### BLAKE'S ${f PATENT}$ STONE BREAKER,

OR ORE CRUSHING MACHINE,

FOR REDUCING TO SMALL FRAGMENTS ROCKS, ORES, AND MINERALS OF EVERY KIND. It is rapidly making its way to all parts of the globe, being now in profitable use in California, Washoe, Lake Superior, Australia, Cuba, Chill, Brazil, and throughout the United States and England. Read extracts of testimonials:—



The Parys Mines Company, Parys Mines, near Bangor, June 6.—We have had one of your stone breakers in use during the last twelve months, and Captain Morcom reports most favourably as to its capabilities of crushing the materials to the required size, and its great economy in doing away with manual labour.

For the Parys Mining Company,

JAMES WILLIAMS.

H. R. Marsden, Esq.

H. K. Marsden, Esq.

Ecton Energy Works, Manchester.—We have used Blake's patent stone breaker made by you, for the last 12 months, crushing emery, &c., and it has givenevery satisfaction. Some time after starting the machine a pleec of the moveable jav's about 20 lbs. weight, chilled cast-iron, broke off, and was crushed in the jaws of the machine to the size fixed for crushing the emery.

H. R. Marsden, Esq.

THOS. GOLDSWORTHY & SONS.

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Welsh Gold Mining Company, Dolgelly,—The stone breaker does its work ad mirably, crushing the hardest stones and quartz.

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Our 15 by 7 in. machine has broken 4 tons of hard whinstone in 20 minutes.

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Stone and Lime Merchants, Darlington.

Kirkless Hall, near Wigan.—Each of my machines breaks from 100 to 120 tons of limestone or ore per day (10 hours), at a saving of 4d, per ton.

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General Frémont's Mines, California.—The 15 by 7 in. machine effects a saving of the labour of about 30 men, or \$75 per day. The high estimation in which we hold your invention is shown by the fact that Mr. Park has just ordered a third machine for this estate.

SILAS WILLIAMS.

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MEADOW LANE, LEEDS, ONLY MAKER IN THE UNITED KINGDOM.

## CAUTION!

## BLAKE'S PATENT STONE BREAKER, In Chancery.

BLAKE v. ARCHER, NOVEMBER 12, 1867.

His Honour the Vice-Chancellor Wood having found a VERDICT in FAVOUR of the PLAINTIFFS in the above Cause, establishing the VALIDITY of BLAKE'S PATENT, and made a DECREE for an INJUNCTION to RESTRAIN the DEFENDANTS, Messrs. Thomas Archer and Son, of Dunston Engine-Works, near Gateshead-on-Tyne, from INFRINGING such PATENT, and ordering them to pay to the Plaintiffs the costs of the Suit.

ALL PERSONS are hereby CAUTIONED against MANUFACTURING, SELLING, or USING any STONE BREAKERS similar to BLAKE'S, which have not been manufactured by the Plaintiffs. Application will forthwith be made to the Court of Chancery foy INJUNCTIONS AGAINST ALL PERSONS who may be found INFRINGING BLAKE'S PATENT after this notice. SOLE MAKER IN ENGLAND,

H. R. MARSDEN, SOHO FOUNDRY, MEADOW LANE, LEEDS.

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MAKERS OF

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#### PATENT FLEXIBLE TUBING AND BRATTICE CLOTH FOR MINES

ELLIS LEVER. GORTON WORKS, MANCHESTER.

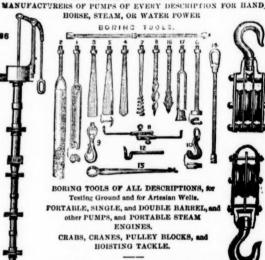
BICKFORD'S PATENT SAFETY FUSE
Obtained the PRIZE MEDALS at the "ROYAL EXHIBITION" of 1851; at
the "INTERNATIONAL EXHIBITION" of 1862, in London; at the "IMPERIAL EXPOSITION" held in Paris, in 1855; at the "INTERNATIONAL
EXHIBITION," in Dublin, 1865; and at the "UNIVERSAL EXPOSITION,"
in Paris, 1867.



BICKFORD, SMITH, AND CO., of TUCKINGMILL. CORNWALL, MANUFACTURERS of PATENT SAFETY-FUSE, having been informed that the name of their firm has been attached to fuse not of their manufacture, beg to call the attention of the trade and public to the following announcement:—EVERY COIL of FUSE MANUFACTURED by them GUNPOWDER, and BICKFORD, SMITH, AND CO. CLAIM SUCH TWO SEPARATE THREADS AS THEIR TRADE MARK.

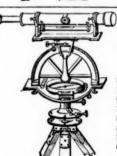
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N ERVOUS DEBILITY: ITS CAUSE AND CURE.—Before seeking aid from the so-called remedies without medicine, read this valuable work on the Treatment and Cure of Nervous and Physical Debility, Loss of Appetite, Pains in the Back, Spermatorrhea, &c., with Plain Directions for Perfect Restoration to Health. Sent post free to any address, on receipt of two postage stamps. Letters of enquiry or details of case promptly answered.

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Orders promptly executed by post or telegraph.
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Gentlemen requiring reliable and correct information respecting any Coal or rom Mine Property in the Forest of Dean may obtain it on application.
Surveys, Plans, Reports, and Valuations on the usual moderate terms. IN THE MATTER OF THE COMPANIES ACT, 1862, AND IN THE MATTER OF THE NORMAN CHINA CLAY AND TIN WORKS COMPANY (LIMITED). MATTER OF THE NORMAN CHINA CLAY AND TIN WORRS COMPANY (LIMITED).

OTICE IS HEREBY GIVEN, that ALL PERSONS having any CLAIMS or DEMANDS AGAINST THIS COMPANY, which is being WOUND-UP VOLUNTARILY under the said Act, are HEREBY REQUIRED to SEND NOTICE and PARTICULARS of SUCH CLAIMS or DEMANDS to the Liquidator of the said company, at his office, 25, Bucklersbury, in the City of London, on or before the 24th day of March instant, after which time he will proceed to distribute the assets of the company among the persons entitled thereto, having regard only to the claims or demands of which he shall then have had notice, and he will not be liable for the assets so distributed, or any part thereof, to any person of whose claim be shall not then have had notice; and all persons omitting to send in notice of their claims or demands by the time and in manner aforesaid, will be EXCLUDED from the BENEFIT of DISTRIBUTION of the company's assets.

CHARLES WARWICK, 25, Bucklersbury, London Dated 3d March, 1868.

(CHARLES WARWICK, 25, Bucklersbury, London CEDIE CHARLES WARWICK, 25, Buck THE GREAT LAXEY MINING COMPANY (LIMITED).—
At a MEETING of the DIRECTORS held at the company's offices, No. 5,
Sherborne-lane, King William-street, London, on TUESDAY, March 14, 1868,
the usual QUARTERLY DIVIDEND of TEN SHILLINGS PER SHARE was
DECLARED, payable on the 24th Instant. W. ALLEN, Secretary. DECLARED, payable on the 24th instant.

W. ALLEN, Secret 1.

CENTRAL AMERICAN ASSOCIATION (LIMITED).—Notice is hereby given, that a SPECIAL GENERAL MEETING of the Central American Association (Limited) will be HELD at the office of the company, 4. Westminster-chambers, Victoria-street, 8.W., in the City of Westminster, on FRIDAY, the 20th of March, 1868, at Two o'clock P.M., for the purpose of passing, or otherwise, the following special resolutions:—

1.—That the sum of £1 per share be returned to the holders of all issued shares upon which the sum of £0 per share is now paid up, payable by two equal instalments,—on the 1st of October, 1868, and 1st of February, 1869.

Notice is also given, that a further SPECIAL GENERAL MEETING of the Central American Association (Limited) will be HELD at the said office of the company, on FRIDAY, the 3d of April, 1868, at Two o'clock P.M., for the purpose of confirming the said resolutions.

By order of the Board.

EDWARD SCHUBERT, Acting Secretary, 4. Westminster-chambers, Victoria-street, London, S.W., March 6, 1868. UNITED MEXICAN MINING COMPANY (LIMITED).—
Notice is hereby given, that an EXTRAORDINARY GENERAL MEETING
of proprietors will be HELD at the office of this company, on WEDNESDAY,
the 25th day of March inst, at Two o'clock precisely, for the purpose of submitting a proposition for the acquisition by the company of certain mines in
Mexico, and, if so agreed upon, for calling up such further portion of the capital
as may be determined.

The Transfer-books will be closed on the afternoon of the lath inst. and we

FOREIGN DIVIDEND MINES. NON-DIVIDEND FOREIGN MINES. as may be determined.

The Transfer-books will be closed on the afternoon of the 14th inst., and reopened on the day succeeding the meeting.

By order of the Board,

W. M. BROWNE, Secretary.

Office, S. Great Winchester-street-buildings, E.C., London, March 6, 1868. Omce, 3, Great Winchester-street-buildings, E.C., London, March 6, 1868.

Non Pedro North Dell Rey Gold Mining Company
General Merch 1988.

General Mining 1988. THOMAS ASSAY OF FICE AND LABORATORY,
No. 2, CROWN CHAMBERS, CROWN COURT,
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Gentlemen going abroad for mining purposes instructed in assaying, and the
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Shares. Mines. 4000 Ballacorkish, I. of Man, I., et al. 3 5 0 ... 4000 Ballacorkish, I. of Man, I., et al. 3 5 0 ... 4000 Ballacorkish, I. of Man, I., et al. 3 5 0 ... 4000 Ballacorkish, I. of Man, I., et al. 4000 Ballacorkish, I. of Man, I., et al. 4000 Ballacorkish, I. of Man, I. of Ballacorkish, I. of Man, I. of Ballacorkish, I. of Ballacork 6000 Reinfie Laxey, 4, 10 Man\* 4 10 0. - 10. 12. 6000 Roaring Water\*. 215 0. - 10. 12. 6000 Roaring Water\*. 215 0. - 10. 2000 Roseeliff and Tolcarne, 1\* 9 10 0. 10 . 3973 Rosewarne Cons., 6, Winear 5 12 6. - 308. 33. 16000 Shropshire Copper, c\* 2 10 0. - 309. 33. 16000 Shropshire Copper, c\* 2 10 0. - 400 Silver Brook, s-l, Carmar.\*. 10 0. - 400 Silver Brook, s, l, Perranz. 6 2 6. - 6000 S. O. Chiverton, s, l, Perranz. 6 2 6. - 6000 S. O. Fowey, c, Tayskard. 4 4 0. - 3300 So. Chiverton, s, l, Perranz. 6 2 6. - 6000 So. Fowey, c, Tayskard. 4 4 0. - 3273 South Trevenna, c, 1. 2 10 0. - 4273 South Trevenna, c, 1. 2 10 0. - 4273 South Trevenna, c, 1. 2 10 0. - 4273 South Trevenna, c, 1. 2 10 0. - 4273 South Trevenna, c, 1. 2 10 0. - 4283 Spearne Consols, t, St. Just. 4 4 4 . - 4242 Spearne Gonsols, t, St. Just. 4 4 4 . - 4242 Spearne Gonsols, t, St. Just. 4 4 4 . - 4242 Spearne Gonsols, t, St. Just. 4 4 4 . - 4242 Spearne Gonsols, t, St. Just. 4 4 4 . - 4242 Spearne Gonsols, t, St. Just. 4 4 . - 440 Trevenna Tremenheren. 7 11 0. - 4006 St. Just Amalg., t, \* [6000 £3 108, pd., 2771 £2 5s. pd. 300 Steeple Aston Tron Ore Co. 4 0 0. 7 7000 St. prevenna, t. St. Just. 1 12 0. - 500 Tresavean and Trethurrup. 16 11 0. - 4400 Trevenna Tremenheren. 7 11 0. - 4006 Trewetha, s-l, Menhenlot. 7 17 0. - 1943 Trewerlins, s-l, Kendron. 11 15 4 . - 4200 Vigra and Clogau, c, Dolg.\*\*, 5 10 0. - 3200 Tin Hill, t, St. Austell. 1 12 0. - 500 Tresavean and Trethurrup. 16 11 0. - 4400 Wh. Branz, c, Crowan. 1 0 0 . - 4200 Vigra and Clogau, c, Dolg.\*\*, 5 10 0. - 3200 Tin Hill, t, St. Austell. 1 12 0. - 500 Tresavean and Trethurrup. 16 11 0. - 4400 Wh. 4400 Trevenna Tremenheren. 7 11 0. - 4400 Wh. 4400 Wh. Tremanye, c, St. Etch. 0 6 0. - 4400 Wh. 4400 Wh. 500 St. 500 St.

b, blende; cl, coal; c, copper; g, gold; l, lead; s, milver; sl., slate; s-l, milver-lead; t, tin; z, zinc.

\*.\* Companies marked thus \* have been incorporated with Limited Liability; those marked † have been admitted on the Stock Exchange, those marked thus ; have paid Dividends.

London: Printed by RICHARD MIDDLETON, and published by HENRY ENGLISH (the proprietors), at their office, 26, Fleet Street, E.C., where all communications are requested to be addressed.—March 14, 1868.

MINERAL LANDS OF NOVA SCOTIA.

N TERNATIONAL MINING A OFFICE, SOMERSET HOUSE, PRINCE STREE MAIL ADDRESS, BOX 266, 6, P.O., HALIFAX, NOVA A. HEATHERINGTON, PROPRIETOR. A Register kept of every description of Mineral Lands and Mining Shares for Sale.—Properties Viewed and Reported on, and their Purchase or Sale, when required, negotiated for a moderate commission.—The services of Explorers, Overseers, &c., engaged for Mine Owners.—Maps, Diagrams, Statistics, and useful information regarding each district supplied.—Returns made for absent proprietors.

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T H O M A S T H O M ASSAYER, &c., COPPER ORE WHARVES, SWANSEA.

M R.